technicolor



SETUP AND USER GUIDE

Technicolor TG672

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Technicolor TG672

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About this Setup and User Guide

In this Setup and User Guide

The goal of this Setup and User Guide is to show you:

- Set up your Technicolor Gateway and local network
- Configure and use the main features of your Technicolor Gateway.

For more advanced scenarios and features visit the documentation pages on www.technicolor.com.

Used Symbols





The warning symbol indicates that there may be a possibility of equipment damage.



The *caution* symbol indicates that there may be a possibility of service interruption.

The *note* symbol indicates that the text provides additional information about a topic.

Terminology

Generally, the Technicolor TG672 will be referred to as Technicolor Gateway in this Setup and User Guide.

Typographical Conventions

Following typographical convention is used throughout this manual:

- <u>This sample text</u> indicates a hyperlink to a Web site.
 Example: For more information, visit us at <u>www.technicolor.com</u>.
- This sample text indicates an internal link. Example: If you want to know more about guide, see "About this Setup and User Guide" on page 1.
- This sample text indicates an important content-related word.
 Example: To enter the network, you must authenticate yourself.
- This sample text indicates a GUI element (commands on menus and buttons, dialog box elements, file names, paths and folders).

Example: On the File menu, click Open to open a file.

1 Getting Started

Introduction

This chapter gives you a brief overview of the main features and components of the Technicolor Gateway. After this chapter we will start with the installation.



Do not connect any cables to the Technicolor Gateway until instructed to do so.

1.1 Features At A Glance

Introduction

This section provides a brief overview of the main features of your Technicolor Gateway.

Internet connection features

- Broadband Internet access via the integrated DSL modem.
 The first chapters describe how to connect your Technicolor Gateway to the Internet.
- Broadband Internet access via the Gigabit WAN port. The first chapters describe how to connect your Technicolor Gateway to the Internet.
- 3G (Fall-back) High-speed Internet Access via the optional mobile USB adaptor.
 For more information, see "3.5 Setting Up the 3G Fall-Back WAN Connection" on page 34.
- Internet Security for your entire network.
 For more information, see "11 Internet Security" on page 123.
- Useful network tools like UPnP, Dynamic DNS and many more.
 For more information, see "10 Technicolor Gateway Network Services" on page 111.

Local networking features

- Wired access for your local network devices via the Ethernet interface.
 For more information, see "3.3.2 Setting up a Wired Connection" on page 32.
- Wireless access for your local network devices via the integrated IEEE 802.11n wireless access point.
 For more information, see "5 The Technicolor Gateway Wireless Access Point" on page 59.
- An Integrated Media Server allowing you to share your media with media players and other network devices. For more information, see "8 Sharing Content on your Technicolor Gateway" on page 87.
- Turn your USB printer in a network printer thanks to the *Printer Sharing* feature. For more information, see "9 Sharing Your USB Printer" on page 101.

Telephony features

The Technicolor Gateway offers **Voice over IP** (VoIP) connectivity for traditional phones, DECT phones and IP phones. For more information see "6 Telephony" on page 69.

ECO label

Technicolor's ECO label guarantees you that the Technicolor Gateway is able to reduce its power consumption to an absolute minimum. For more information, see "7 Saving Energy with Your Technicolor Gateway" on page 83.

Technicolor Gateway configuration tools

- The Technicolor Gateway Setup CD allows you to configure your Technicolor Gateway and helps you to connect your computers to the Technicolor Gateway.
- The *Technicolor Gateway GUI* allows you to configure your Technicolor Gateway via your web browser. For more information, see *"4.1 Technicolor Gateway GUI" on page 42*.
- The Command Line Interface (CLI) is a command based configuration tool that allows you to configure every detail of your Technicolor Gateway. For more information, see "4.3 The Command Line Interface (CLI)" on page 49.

Advanced features

In addition to the features listed above, the Technicolor Gateway also offers features for more advanced users. Amongst these features are:

- An integrated IPSec VPN LAN-to-LAN, client and server
- Extensive operator management capabilities (SNMPv3, TACACS+, Syslog)
- Multiple SSID
- Quality of Service (QoS)
- Dynamic routing support, including RIP, BGP and OSPF
- SOHO/SME PABX functionality (with integrated SIP server/ Back to Back User Agent)
- IPv6 Ready

For more information on these and other advanced features consult the documentation pages of your product on <u>www.technicolor.com</u>.

1.2 User Scenarios

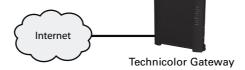
Scenarios

Depending of the architecture of your home network, you can use the Technicolor Gateway in either of the following scenarios:

- DSL Gateway
- Local Router

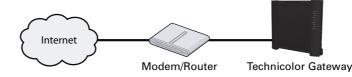
DSL Gateway

The Technicolor Gateway is connected to the DSL network of your service provider and brings the Internet to your home.



Local Router

The Technicolor Gateway is placed behind another gateway or modem. In this setup the gateway or modem in front of the Technicolor Gateway will establish the connection to the Internet:



This scenario is used when:

- The Internet connectivity is provided by another device (for example, a cable modem). The Technicolor Gateway is used to add specific services to your home network.
- Your service provider is using Ethernet in the First Mile (EFM). The Ethernet signal is directly coming into your home.
- Your service provider is using Ethernet To The Home (ETTH). Technicolor Gateway is directly connected to the terminator of your service provider's fiber-optic network and your local network

1.3 Housing

Mounting options

The Technicolor Gateway can be used in the following has been designed can be mounted in the following positions:

Vertical:



Horizontal:



This position allows you to stack multiple Technicolor Gateways.



On the wall:

To mount the Technicolor Gateway on a wall, follow the instructions provided by the wall mount template that is included in your box.

Placing your Technicolor Gateway horizontally

To be able to place the Technicolor Gateway in its horizontal position, you must first attach the mountable stand that is included in your box.



Place the locking catches of the mounting stand into their slots on the Technicolor Gateway and slide the mountable stand into place.

1.4 Components

Overview

This section provides an overview of the different components of the Technicolor Gateway:

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1.4.1 Power

Overview



Power inlet

The power inlet (+-)-) allows you to connect the power supply.

Only use the power supply delivered with your Technicolor Gateway.

Power switch

The power switch (\bigcirc) allows you to power on/off your Technicolor Gateway.

1.4.2 Local Network Connection

Overview



Wireless Access Point

The built-in WiFi-certified wireless access point provides wireless access to your WiFi-certified wireless clients.

For more information, see "5 The Technicolor Gateway Wireless Access Point" on page 59.

Ethernet switch

The Ethernet switch () allows you to connect an Ethernet device (for example, a computer) to your local network. For more information, see "3.3.2 Setting up a Wired Connection" on page 32.

USB Port

The USB port $(\bullet \frown)$ can be used to:

- Connect a USB mass storage device to *share your content* (for example, music, movies,...):
 - > On your local network via the *Network File server* or the *UPnP AV Media Server*.
 - On Internet via FTP.

For more information, see "8 Sharing Content on your Technicolor Gateway" on page 87.

- Connect your USB printer and share it with other users on your network. For more information, see "9 Sharing Your USB Printer" on page 101.
- Connect a 3G mobile adaptor to set up a 3G connection that can work as a backup for your main Internet connection. For more information, see "3.5 Setting Up the 3G Fall-Back WAN Connection" on page 34.

1.4.3 Broadband Connection

Overview



DSL port

This port can be used to connect your Technicolor Gateway to your service provider's DSL network.

WAN port

This port allows you to use your Technicolor Gateway as *Local Router*. For more information, see "1.2 User Scenarios" on page 6.

1.4.4 Voice Connection

Overview



DECT base station

The integrated DECT base station allows you to connect your DECT phones to the Technicolor Gateway. This way you will be able to make phone calls over the Internet and save on communication costs, especially for long-distance calls.

Phone Port

The **Phone** (*r*) port allows you to connect a traditional phone to your Technicolor Gateway. This way you will be able to make phone calls over the Internet and save on communication costs, especially for long-distance calls.

For more information, see "6.1 Setting Up Your Telephone Network" on page 70.

PSTN Port (optional)

The **PSTN** port allows you to connect the Technicolor Gateway to the traditional telephone network, i.e. the Public Switched Telephone Network (PSTN). When the VoIP connection is not available, the Technicolor Gateway will automatically switch from VoIP to the traditional telephone network.



If your Technicolor Gateway does not have a **PSTN** port, this means that:

■ Your Technicolor Gateways has an integrated filter

The Technicolor Gateway separates the phone signal from the signal coming from the *DSL port*. Your Technicolor Gateway has an integrated filter if the product name printed on the label of your Technicolor Gateway ends with "wIF" (with Integrated Filter). If this suffix is not present, then your Technicolor Gateway does not have an integrated filter.

- or -

■ Your Technicolor Gateway is VolP-only

All calls passing through the Technicolor Gateway will be done via VoIP.

Be aware that, if you are not connected to the traditional telephone network, emergency calls will not be possible when your Internet connection is down or your Technicolor Gateway is powered off.

For more information, see "6.1.2 Connection to the Traditional Telephone Network" on page 72.

1.4.5 Console Connection

Overview



Console port

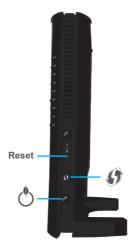
The **Console** (__) port on the Technicolor Gateway allows you to access your Technicolor Gateway via a serial connection. Via this serial connection, you can:

- Access the Command Line Interface (CLI) to configure your Technicolor Gateway.
- View the traces of your Technicolor Gateway.

For more information, see "4.3.2 Access the CLI via a Console Connection" on page 51.

1.4.6 Buttons

Overview



DECT Pairing/Paging button

If you press the DECT pairing/paging 💋 button:

- Between 1 and 5 seconds, the Technicolor Gateway pages all connected DECT phones.
- Longer than 5 seconds, switches to registration mode to allow you to connect your DECT phone(s) to the integrated DECT base station of the Technicolor Gateway.

For more information, see "6.1.1 Connecting a DECT Phone to Your Technicolor Gateway" on page 71.

WPS button

The WPS (() button allows you to add new wireless clients to your network in a swift and easy way, without the need to enter any of your wireless settings manually.

For more information, see "5.1 Connecting Your Wireless Client via WPS" on page 60.

Reset button

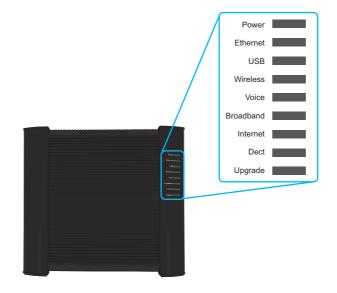
The Reset button allows you to reset your Technicolor Gateway to factory defaults.

For more information, see "12.6 Reset to Factory Defaults" on page 139.

1.4.7 Status LEDs

Introduction

On the front panel of your Technicolor Gateway, you can find a number of status LEDs, indicating the state of the device.



Power LED

Colour	State	Description
Green	Solid on	Power on, normal operation
	Blinking	Bootloader active (during upgrade)
Red	Solid on	Power on, self-test failed, indicating device malfunction
Orange	Solid on	Bootloader selftest
	Blinking	Bootloader active (during upgrade)
Off		The Technicolor Gateway is powered off.

Ethernet LED

Colour	State	Description
Green	Solid on	Network device connected to the Ethernet switch.
	Blinking	Network device connected to the Ethernet switch and sending/receiving data.
Off		No Ethernet connection on your local network

USB LED

Colour	State	Description
Green	Solid on	Device(s) connected to the Technicolor Gateway's USB port
Off		No device connected to the Technicolor Gateway's USB port

Wireless LED

Colour	State	Description
Green	Solid on	No wireless activity, WPA(2) encryption
	Blinking	Wireless activity, WPA(2) encryption
Orange	Solid on	No wireless activity, WEP encryption
	Blinking	Wireless activity, WEP encryption
Red	Solid on	No wireless activity, no security
	Blinking	Wireless activity, no security
Red/green	Toggling	Wireless client registration phase
Off		Wireless access point disabled

Broadband LED (if you are using the DSL Gateway scenario)

Colour	State	Description
Green	Solid on	DSL line synchronised
	Blinking	Trying to detect carrier signal or pending DSL line synchronisation
Off		Technicolor Gateway powered off.

Broadband LED (if you are using the Local Router scenario)

Colour	State	Description
Green	Solid on	Connected to the WAN device
Off		Not connected to the WAN device

Internet LED

Colour	State	Description
Green	Solid on	Connected to the Internet, no activity
	Blinking	Connected to the Internet, sending/receiving data
Red	Solid on	Failed to setup the Internet connection
Off		No Internet connection

1 GETTING STARTED

Voice LED

Colour	State	Description
Green	Solid on	Registered at your VoIP provider, no activity.
	Blinking	Registered at your VoIP provider, activity.
Off		Not registered to your VoIP provider.

DECT LED

Colour	State	Description
Green	Solid on	DECT service up
	Blinking	DECT activity or registering DECT clients
Off		DECT service down

Upgrade LED

Colour	State	Description
Blue	Solid on	Software upgrade ongoing
Off		No software upgrade ongoing



Do not power off your Technicolor Gateway or disconnect any cables as long as the **Upgrade** LED is on. Interrupting the upgrade procedure may damage your Technicolor Gateway.

1.5 Preparing for the Installation

DSL service requirements

This section is only applicable if you are using your Technicolor Gateway as DSL gateway. For more information, see *"1.2 User Scenarios" on page 6.*

Make sure that:

- Your service provider activated the DSL service on your telephone line by your service provider.
- You have the installation information (for example, user name, password, service profile,...) provided by your service provider at hand.

Local connection requirements

Wireless connection

If you want to connect your computer using a wireless connection, your computer must be equipped with a WiFi-certified wireless client adapter.

Wired connection

If you want to connect a computer using a wired connection, your computer must be equipped with an Ethernet Network Interface Card (NIC).

Start with the installation

You are now ready to start with the installation of your Technicolor Gateway.

2 Guided Installation

Introduction

In the guided installation, the Setup wizard on the Setup CD will assist you with the installation of your Technicolor Gateway. If you do not want to use the Setup CD or if the Setup CD is not included in your package, follow the installation procedure described in *"3 Manual Installation" on page 23*.

Requirements

To use the guided installation you must comply with the following requirements:

- Your computer must run one of the following operating systems:
 - Microsoft Windows 7 and higher
 - Microsoft Windows 7 x64 and higher
 - Microsoft Windows Vista and higher
 - Microsoft Windows Vista x64 and higher
 - Microsoft Windows XP Service Pack 2 (SP2) and higher
 - Mac OS X 10.6 (Snow Leopard)
 - Mac OS X 10.5 (Leopard)

■ You must have administrative rights on your computer.

If you do not comply with these requirements, use the "3 Manual Installation" on page 23.

Running the Setup wizard

To start the Setup wizard:

- 1 Insert the Setup CD into your computer's CD- or DVD drive.
- 2 If your computer runs:
 - Microsoft Windows: The Setup CD starts automatically.
 If the Setup CD does not autostart, see "The Setup CD does not start automatically" on page 134.
 - Mac OS X: Double-click Menu in the window with the content of the Setup CD.
- 3 Select the language of your choice and click OK.
- 4 The Setup wizard will now guide you through the installation of your Technicolor Gateway.
- 5 At the end of the installation, the following screen appears:

🚺 Setup Wizard	- 8 %				
	technicolor				
Technicales To 123					
Completing the Technicolor Home Install Wizard					
You are now connected to your Technicolor Gateway.					
Click Finish to quit the wizard.					
Go to the Technicolor Gateway configuration web interface					
< Back Einish	Cancel				

Select **Go to the Technicolor Gateway web interface** if you want to go to the *Technicolor Gateway GUI* after closing the wizard. On the *Technicolor Gateway GUI*, you can configure all services of your Technicolor Gateway.

- 6 Click Finish.
- 7 The CD menu appears.

CD Menu



On the **CD Menu**, you can click:

- Initial Setup to connect your computer to the Technicolor Gateway and configure your local network.
- **Reconfigure my Technicolor Gateway** to fully reconfigure your Technicolor Gateway.



- Setup my computer to connect your computer to the Technicolor Gateway network.
- **Documentation** to view a list of the documentation that is available for your Technicolor Gateway.
- Visit technicolor.com to visit the online support sections.

Actual available items depend on the Setup CD delivered with your Technicolor Gateway.

In case of problems

If you encounter problems during this installation please refer to "12.1 Setup Troubleshooting" on page 134.

Backup your configuration

Once you successfully installed your Technicolor Gateway, it is recommend to backup your configuration. This will allows you to return to this configuration when needed (for example, after misconfiguration).

For more information, see "4.2 Backing Up/Restoring your Configuration" on page 48

3 Manual Installation

Installation

This chapter will help you to manually install your Technicolor Gateway.

Setting up your network

Proceed as follows:

- 1 Connect your Technicolor Gateway to your service provider's network. For more information, see "3.1 Connecting the Technicolor Gateway to your Service Provider's Network" on page 24.
- 2 Power on the Technicolor Gateway. For more information, see "3.2 Powering on the Technicolor Gateway" on page 29.
- **3** Connect your computer to the Technicolor Gateway. For more information, see "3.3 Connecting Your Network Devices to the Technicolor Gateway" on page 30.
- **4** Configure your Technicolor Gateway. For more information, see *"3.4 Configure the Technicolor Gateway" on page 33*.
- 5 Connect your (DECT) phones. For more information, see "6 *Telephony*" on page 69.
- 6 Share your content or media on your local network, continue with "8 Sharing Content on your Technicolor Gateway" on page 87.
- 7 If you purchased the mobile USB adapter, setup the 3G backup connection. For more information, see "3.5 Setting Up the 3G Fall-Back WAN Connection" on page 34.
- 8 Once you successfully installed your Technicolor Gateway, it is recommend to backup your configuration. This will allows you to return to this configuration when needed (for example, after misconfiguration). For more information, see *"4.2 Backing Up/Restoring your Configuration" on page 48.*

3.1 Connecting the Technicolor Gateway to your Service Provider's Network

Identifying your setup

If you are using the Technicolor Gateway as:

- DSL Gateway, continue with "3.1.1 Setting up your Technicolor Gateway as DSL Gateway" on page 25.
- Local Router, continue with "3.1.2 Setting up your Technicolor Gateway as Local Router" on page 28.

For more information, see "1.2 User Scenarios" on page 6, you can use your Technicolor Gateway in either of the following scenarios

3.1.1 Setting up your Technicolor Gateway as DSL Gateway

Introduction

This section helps you to connect the Technicolor Gateway to your service provider's network.

Signal arriving at your home

The Line signal that arrives at your home consists the following components:

■ A *Phone* signal carrying the traffic for telephony.



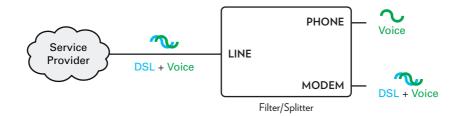
- This **Phone** signal is only used for communication over the traditional telephone network (PSTN). Voice over IP communication will be carried by the **DSL** signal.
- A DSL signal carrying the Internet traffic.

DSL Gateways have a built-in solution to remove the **Phone** component. No additional devices are needed, you can connect them directly to the **Line**.

Telephones do not have this capability, so here you have to use a filter or splitter to remove the DSL signal.

How does a filter/splitter look like

A splitter/filter is a box that typically has the following connectors:



A Line input

This connector must be connected to the input signal that needs to be filtered.

A Phone/PSTN output

This connector offers filtered output signal. It only contains the **Voice** component and can only be used for connecting phones.

A Modem/DSL output (optional)

This connector offers unfiltered output. It contains both the **Phone** and **DSL** signal and can be used to connect your Technicolor Gateway.

Connecting the cables

The procedure to be followed depends on the fact if this filter has been integrated into your Technicolor Gateway or not. Check the label of your Technicolor Gateway. If the product name contains:

- "wIF" (for example Technicolor TG672 wIF) then your Technicolor Gateway has an integrated filter. No external filters are needed. Follow the steps described in "Scenario 2: A Technicolor Gateway without integrated filter" on page 26.
- No "wiF" (for example Technicolor TG672) then your Technicolor Gateway does not have an integrated filter. Follow the steps described in "Scenario 2: A Technicolor Gateway without integrated filter" on page 26.

Scenario 1: A Technicolor Gateway with integrated filter

Proceed as follows:

1 Take the DSL cable. This is the gray cable that is included in your box.

2 Plug one end of the cable in the grey **DSL** port on the back of your Technicolor Gateway.



- **3** Plug the other end of the cable:
 - ▶ In the DSL/Modem output of your splitter/filter.
 - Directly into the telephone wall outlet if there is no **splitter/filter** between the network terminator and your local phone network.

Scenario 2: A Technicolor Gateway without integrated filter

Proceed as follows:

- 1 Take the DSL cable. This is the grey cable that is included in your box.
- 2 Plug one end of the cable in the grey **DSL** port on the back of your Technicolor Gateway.



3 Plug the other end of the cable into the DSL/MODEM output port of your filter/splitter.

If your Technicolor Gateway has a black **PSTN** port on the back, you are able to use the PSTN (this is the traditional telephone network) as a backup for your Voice over IP connection. When the VoIP connection is down, the Technicolor Gateway will automatically switch back to the PSTN network.

To setup this backup connection:

- 1 Take a Telephone Cable
- 2 Plug one end of the cable in the black **PSTN** port on the back of your Technicolor Gateway.



3 Plug the other end of the cable into the **Phone** output port of your filter/splitter.

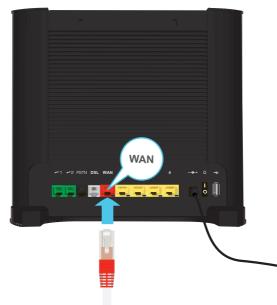
3.1.2 Setting up your Technicolor Gateway as Local Router

Procedure

1

Proceed as follows:

- 1 Take an Ethernet cable. If your box contains an Ethernet cable with red connectors, you can use that cable.
- 2 Plug one end of the cable in the *red* WAN port on the back of your Technicolor Gateway.



3 Plug the other end of the cable into the Ethernet port of your Internet gateway/modem.

The **WAN** port can only be used to connect your Technicolor Gateway to an Internet gateway/modem. You can not use it to connect other devices (for example, a computer) to the Technicolor Gateway.

3.2 Powering on the Technicolor Gateway

Procedure

Proceed as follows:

- 1 Connect the power cord to the power port of the Technicolor Gateway.
- 2 Plug the other end of the power cord into an electrical outlet.
- **3** Press the power button to turn on the Technicolor Gateway.
- 4 Wait at least two minutes to allow the Technicolor Gateway to complete the start up phase.

3.3 Connecting Your Network Devices to the Technicolor Gateway

Choose your connection method

To connect your device via:

- A wireless connection, continue with "3.3.1 Setting up a Wireless Connection" on page 31.
- A wired connection, continue with "3.3.2 Setting up a Wired Connection" on page 32.

3.3.1 Setting up a Wireless Connection

The Technicolor Gateway access point

Your Technicolor Gateway is equipped with a wireless access point that supports the following standards:

- IEEE 802.11n (2.4 Ghz)
- IEEE 802.11g
- IEEE 802.11b

Requirements

Your network device must be equipped with a WiFi-certified wireless client.

Connection speed

When setting up your wireless network, keep in mind that the following factors may have a negative impact on your wireless connection speed:

- The obstacles (walls, ceilings,...) between the wireless client and the access point.
- Distance between the wireless client and the access point.
- To fully benefit from the improved connection speed offered by the IEEE 802.11n standard, it is recommended to only connect IEEE 802.11*n* wireless clients to your Technicolor Gateway. Connecting older (for example, IEEE 802.11g) wireless clients may also slow down connection speed of the IEEE 802.11n capable clients.

If you have problems with your wireless performance, see "Poor Wireless Connectivity or Range" on page 137.

To set up a wireless connections

For more information on how to setup a wireless connection between your network device and your Technicolor Gateway, see "5 The Technicolor Gateway Wireless Access Point" on page 59.

3.3.2 Setting up a Wired Connection

Requirements

- Both your network device (for example, a computer, a gaming console,...) and Technicolor Gateway must have a free Ethernet port.
- Your network device must be configured to obtain an IP address automatically. This is the default setting.

Ethernet cable

In your package, you will find a cable with yellow connectors. This is the Ethernet cable.

Procedure

Proceed as follows:

1 Connect one end of the Ethernet cable to one of the *yellow* Ethernet ports of your Technicolor Gateway:





You can not use the red **WAN** port to connect to the local Ethernet network. The **WAN** port can only be used to connect your Technicolor Gateway to your broadband source.

For more information, see "1.2 User Scenarios" on page 6.

2 Connect the other end of the Ethernet cable to your network device.

The Technicolor Gateway does not support Power over Ethernet (PoE). All network devices that are connected to the Technicolor Gateway must be powered by their own power source.

3 Your network device is now connected to your network. No additional configuration is needed unless specified by your service provider.

3.4 Configure the Technicolor Gateway

Introduction

If your service provider did not preconfigure your Technicolor Gateway, you may have to configure the Technicolor Gateway via its Graphical User Interface (GUI).

Requirements

JavaScript must be enabled on your web browser (this is the default setting). For more information, consult the help of your web browser.

Procedure

Proceed as follows:

- 1 Open your web browser.
- 2 The Technicolor Gateway informs you that you have not yet configured your Technicolor Gateway.

Welcome...

Congratulations on purchasing this Technicolor Gateway business gateway. You are currently not connected to the Internet, click on the task below to continue.

Set up my Technicolor Gateway

If this window does not appear, browse to <u>http://dsldevice.lan</u> or to the IP address of your Technicolor Gateway (by default: <u>192.168.1.254</u>) and click **Technicolor Gateway** on the menu on the left-hand side.

http://www.google.com

- 3 Click Setup my Technicolor Gateway.
- 4 The Easy Setup wizard appears. This wizard will guide you through the configuration of your Technicolor Gateway. Click Next and follow the instructions.

3.5 Setting Up the 3G Fall-Back WAN Connection

Introduction

Many SOHO (Small Offices, Home Offices) and SME (Small/Medium Enterprises) businesses choose DSL as their access technology for a Wide Area Network (WAN) connection because this is typically cheaper than using leased lines. A dropout of a DSL line can however have expensive consequences due to inaccessibility of the Internet and E-mail. Therefore backup solutions are available that provide an alternative path when the DSL line is down.

For example it is possible to switch to 2G / 3G mobile access technologies such as GPRS, UMTS, HSDPA, HSUPA, HSPA+, WIMAX and LTE when internet connectivity is not available via the main WAN connection. By plugging a mobile USB adapter into one of the USB ports of your Technicolor Gateway, IP connectivity via a 2G / 3G network becomes possible.

3G is an umbrella-term to indicate the third generation mobile telephony technology. The services associated with 3G provide the ability to transfer both voice data and non-voice data. 3G networks are the successors of the 2G networks, such as the GSM networks and provide new services and higher data transfer speeds.

What do I need?

To start using 2G / 3G as a connection on the Technicolor Gateway, you need:

- A mobile USB adapter
- A registered Security Identity Module (SIM) card.

Configure 2G / 3G as WAN connection

Proceed as follows:

1

- 1 Create a mobile interface for your Technicolor Gateway. For more information, see *"3.5.1 Setting up a Mobile Interface" on page 35.*
- 2 Configure the newly created mobile interface as your backup connection.

Remember to always assign a higher DNS and (default) route metric compared to the existing metrics used for traffic going over the main WAN interface (DSL/ Ethernet / Fiber To The Home (FTTH)). This way the main WAN connection is always preferred above the mobile connection when up.

For more information, see "3.5.2 Configuring a Backup Mobile Connection" on page 37.

- Insert your mobile USB adapter.For more information, see "3.5.4 Inserting a Mobile USB Adapter" on page 40.
- 4 Now your mobile connection is up and ready to use.



If you need to remove your mobile USB adapter, make sure the Technicolor Gateway is powered off first.

Result

Technicolor Gateway will automatically enable your 3G backup connection when **both** of the following conditions are met:

- The main Internet connection has been unavailable for at least 60 seconds.
- The Technicolor Gateway received a request to access the Internet (for example, when browsing to an Internet web site).

The Technicolor Gateway will automatically disable the 3G connection in *either* of the following cases:

- The main Internet connection is available again. In this case the Technicolor Gateway switches back to the main Internet connection.
- No Internet traffic has been detected during the last 10 seconds. For example, you finished surfing the Internet.

3 MANUAL INSTALLATION

3.5.1 Setting up a Mobile Interface

Procedure

To set up the mobile interface complete the following steps:

Step 1: Start a CLI session.

Step 2: Add a mobile interface

Step 3: Configure a mobile interface

Step 4: Attach the mobile interface

Step 1: Start a CLI session

For more information, see "4.3 The Command Line Interface (CLI)" on page 49.

Step 2: Add a mobile interface

Execute the following command:

:mobile ifadd intf=<string>

With the following parameters:

∎ intf

The name of the mobile USB interface.

Example:

:mobile ifadd intf=mobile_usb

With the command **mobile** ifdelete intf you can delete a mobile USB interface.

Step 3: Configure a mobile interface

Execute the following command:

```
:mobile ifconfig intf=<string> [pin=<password>] [puk=<string>]
        [apn=<string>] [mode=<{automatic|manual}>]
        [operator=<number{0-99999}>] [technology=<{2G|3G}>]
        [initcommand=<string>]
```

With the following parameters:

intf

The name of the mobile USB interface.

pin

This parameter represents the PIN code of the SIM card.

puk

This parameter represents the PUK code of the SIM card.



Only if you failed three times to attach the mobile interface using a wrong (unique) PIN code, the PUK code will be used instead of the PIN code. It is advised to always fill in this parameter.

apn

The Access Point Name (APN) used to access the packet switched services of the operator. The APN syntax must follow the rules specified in the standard 3GPP23.003. It is recommended to always specify this value. If not specified, the network will try to fill in the APN but may fail.

mode

The automatic (default) or manual selection of the mobile operator and technology.



It is advised to select manual mode and fill in the mobile operator and technology.

operator

This parameter can be used to fill in the Location Area Identifier. This code consists of a three-digit Mobile Country Code (MCC) and a two-digit Mobile Network Code (MNC). For a list of all available Location Area Identifiers, please refer to http://www.itu.int/dms_pub/itu-t/opb/sp/T-SP-E.212B-2010-PDF-E.pdf.

technology

The initial radio access technology (2G / 3G) to use for connection. If the selected technology is not available, the alternative will be used.

initcommand

The AT command to be executed between SIM verification and the actual network connection. This command can be used to perform vendor specific actions that are required for a successful connection.



Your mobile interface can only be configured if it is not attached.

Example:

:mobile ifconfig intf=mobile_usb pin=1234 apn=web.provider.com operator=20610 technology=3G
mode=manual puk=12345678 initcommand=ATE

To check all your mobile connection configurations, use the following command:

```
=>:mobile iflist
mobile_usb:
    pin:    ****
    puk:
    APN:    web.provider.com
    mode:    automatic
    operator:    0
    technology:    3G
    init command:
=>
```



To check the configuration of a specific mobile connection use the command **mobile iflist intf=<your** intf>.

Step 4: Attach the mobile interface

Execute the following command:

:mobile ifattach intf=<string>

With the following parameters:

intf

The name of the mobile USB interface.

Example:

:mobile ifattach intf=mobile_usb

With the command **mobile ifdetach intf=<string>** you can detach a mobile USB interface.

3.5.2 Configuring a Backup Mobile Connection

Dial-On-Demand

By enabling the Dial-On-Demand (DOD) function when setting up the PPP interface, the new 2G/3G connection will function as a backup connection:

The "doddelay" (DOD delay) timer is the amount of time the Technicolor Gateway waits before triggering the mobile connection.



After starting up your Technicolor Gateway, it might take some time until the main WAN connection comes up. If this parameter is put to 0 an immediate parallel 2G / 3G connection will start up and disconnect immediately when the main WAN connection has come up.

- After injecting the mobile connection interfaces in the routing table, you will also notice a trigger interface (for default routes) appearing (with according metric) in the routing table. When the main WAN interface goes down and the mobile connection establishes, this trigger interface will disappear.
- As long the main WAN connection is down, traffic will go over the mobile connection (routes with the higher metrics). When the main WAN connection comes up again, DOD will injecting the DNS and routes with lower metric of the main WAN connection in the routing table. According to the routing principles this will cause traffic to go over the main WAN connection again.
- The "Idletime" timer is the amount of time the Technicolor Gateway waits before removing the DNS and routes of the mobile connection once no more traffic is detected on this connection. During this time-out, two identical routes will exist in the routing table, yet with different metrics. The lowest metric will be used according to routing principles.



If this parameter is set to 0 and there is very few traffic over the 3G connection, each time new traffic is detected on the 3G connection, the Technicolor Gateway will attempt to switch back to its prioritized main WAN connection.

Procedure

To configure the backup connection, complete the following steps:

Step 1: To set up a PPP interface

Step 2: Enable NAT address translation for the new PPP interface

Step 3: Save your changes!

Step 1: To set up a PPP interface

Proceed as follows:

1 To add a PPP interface, execute the following command:

:ppp ifadd intf=3G-Backup

2 Configure this PPP interface with a higher metric than the main WAN connection and enable the DOD function. The user name and password are used for CHAP / PAP authentication for a specific APN:

```
:ppp ifconfig intf=3G-Backup dest=mobile_usb user=dummy password=dummy demanddial=enabled
idletime=60 doddelay=30 dnsmetric=20
```

3 Configure the route to add to the routing table when this interface comes up:

:ppp rtadd intf=3G-Backup dst=0.0.0.0 metric=30



Your PPP interface can only be configured if it is detached.

4 Attach the newly configured PPP interface:

:ppp ifattach intf=3G-Backup

Step 2: Enable NAT address translation for the new PPP interface

Execute the following command:

:nat ifconfig intf=3G-Backup translation=enabled

Step 3: Save your changes!

Execute the following command:

:saveall



If you do not save your settings, all your changes will be lost after a powering of or restarting the Technicolor Gateway.

3.5.3 Managing your Mobile Connection with the Technicolor Gateway GUI

Introduction

You can view and manage the parameters of your mobile connection via the Technicolor Gateway GUI.

The mobile connection needs to be configured first before it is shown on the Technicolor Gateway GUI.

Procedure

To manage your mobile USB connection via the Technicolor Gateway GUI:

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Broadband Connection menu, click Internet Services.
- 3 Click View more... for the mobile USB connection. The Overview page of the mobile USB connection is shown.
- 4 In the location bar, click **Configure**. The **Configure** page of the mobile connection appears.

Home > Broad	Iband Connection > Internet Services	> 3GfallBack	Overview Configu
ິ	3GfallBack		
	 Mobile Information 		
	APN:	web.provider.com	
	Operator Mode:	Automatic	♥
	PIN:	••••	
			Apply Cancel

- 5 Under Mobile Information, update the following fields if necessary:
 - ► APN:

The public APN used to access the Internet, or the private APN to access a local network.

Operator Mode:

2G / 3G / automatic (let the Technicolor Gateway choose the best operator mode)

▶ Pin:

The PIN code of your SIM card.

6 Click Apply to apply your configuration changes.

Configuration changes via the Technicolor Gateway GUI are automatically saved.

3.5.4 Inserting a Mobile USB Adapter

Procedure

Once the mobile connection is configured you can proceed as follows to insert the mobile USB adapter:

1 Power off the Technicolor Gateway.

If you do not power off the Technicolor Gateway first, the mobile USB adapter will not be detected.

- 2 Insert your SIM card into the mobile USB adapter.
- 3 Plug the mobile USB adapter in (one of) the USB port(s) of your Technicolor Gateway:



4 Power on the Technicolor Gateway.

4 Configuration Tools

Configuration Tools

You can use the following tools to configure your Technicolor Gateway:

- The Technicolor Gateway Setup CD allows you to configure your Technicolor Gateway and helps you to connect your computers to the Technicolor Gateway. For more information, see "2 Guided Installation" on page 21.
- The Technicolor Gateway GUI allows you to configure your Technicolor Gateway via your web browser. For more information, see "4.1 Technicolor Gateway GUI" on page 42.
- The Command Line Interface (CLI) allows you to configure every detail of your Technicolor Gateway using textual commands. For more information, see "4.3 The Command Line Interface (CLI)" on page 49.

4.1 Technicolor Gateway GUI

Introduction

The Technicolor Gateway Graphical User Interface (GUI) allows you to configure your Technicolor Gateway using your web browser.

Requirements

JavaScript must be enabled on your browser (this is the default setting). For more information, consult the help of your web browser.

4.1.1 Access

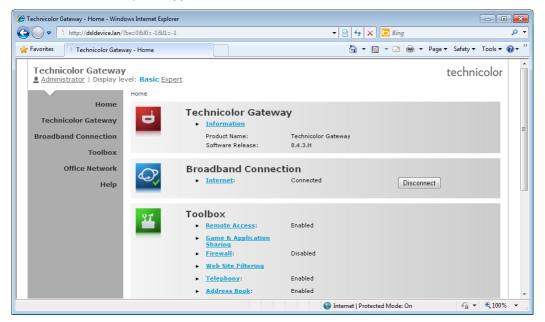
Accessing the Technicolor Gateway GUI

Proceed as follows:

- 1 Open your web browser.
- 2 Browse to http://dsldevice.lan or to the IP address of your Technicolor Gateway (by default: 192.168.1.254).
- 3 If you have protected your Technicolor Gateway with a user name and password, the Technicolor Gateway will prompt you to enter these. Enter your user name and password and click **OK**.

For more information, see "4.1.3 Protecting Access to the Technicolor Gateway" on page 47.

4 The Technicolor Gateway GUI appears.



Access the Technicolor Gateway via UPnP

You can also access the Technicolor Gateway GUI using the Internet Gateway Device (IGD) icon if your computer runs one of the following operating systems:

- Microsoft Windows 7
- Microsoft Windows Vista
- Microsoft Windows XP

For more information, see "10.1 UPnP" on page 112.

Remote access

It is also possible to access the Technicolor Gateway GUI from the Internet. For more information, see "4.4 Access From the Internet" on page 58.

4.1.2 Components

Overview

Depending on your user right and location on the GUI, the following components can be available:



Label	Description
1	Menu
2	Login section
3	Display level
4	Language bar
5	Notification area
6	Navigation bar
7	Content pane
8	Tasks pane

Menu

The menu consists of the following menu items:

Home:

Allows you to go back to the Technicolor Gateway home page.

- Technicolor Gateway: Provides basic information on the Technicolor Gateway.
- Broadband Connection: Allows you to view/configure your broadband connections.
- Toolbox: Allows you to configure the network services and security settings of your Technicolor Gateway.
- Office Network: Allows you to manage your local network.

■ Help:

Allows you to view context-related help information.

Each of these items contain a number of sub-menu items.

Login section

In the login section you can see the current user name.

By clicking the user name, you can:

- Change your password.
- Switch to another user.

Display level

The display level section allows you to switch the Technicolor Gateway GUI to:

■ The **Basic** level:

The **Basic** level allows you to configure the basic Technicolor Gateway settings and services. All changes that you make are saved automatically.

■ The Expert level:

The **Expert** level allows you to configure the advanced settings. When you click **Expert**, the following menu items appear:

Technicolor Gateway:

Allows you to view information on your Technicolor Gateway, configure or upgrade it.

► IP Router:

Allows you to view/configure the Technicolor Gateway IP interfaces, IP routing table and NAT entries.

• Connections:

Allows you to view/configure a broadband connection.

Local Networking:

Allows you to view/configure the Technicolor Gateway DHCP server/client, the DNS configuration, the managed Ethernet switch.

Firewall:

Allows you to view/configure the Technicolor Gateway Firewall.

• VPN (if supported):

Allows you to configure the Technicolor Gateway for VPN.

SIP PBX (if supported):

Allows you to configure the Technicolor Gateway SIP PBX.



In **Expert** level, you must click **Save All** to make your changes permanent. If you do not do so, your changes will be lost after rebooting the device.

Language bar

If more than one GUI language is available, a language bar is showed. This language bar allows you to change the language of the Technicolor Gateway GUI.

Notification area

The notification area displays:

- Error messages, indicated by a red traffic light.
- Warning messages, indicated by an orange traffic light.

■ Information messages, indicated by a green traffic light.



If none of these events occur, the notification is not shown.

Navigation bar

The Navigation bar displays your current position in the Technicolor Gateway GUI.

Some page are available in different configuration levels. These pages have additional links (for example, **Overview**, **Configure**) in the right part of the navigation bar that allow you to switch between the configuration levels.

Content pane

The content pane displays the information and configurable items of the selected item.

Tasks pane

To allow a quick configuration of your Technicolor Gateway, some pages may offer you a number of related tasks in the **Pick a task** list. These tasks will guide you to the page where you can perform the selected task.

4.1.3 Protecting Access to the Technicolor Gateway

Introduction

To prevent that every user on your local network can access the Technicolor Gateway, the Technicolor Gateway is secured with a user name and password.

Default user name

The default user name is Administrator.

Default password

The default password is either blank or the **ACCESS KEY** printed on the label of your Technicolor Gateway. This depends on the settings chosen by your Service Provider.



It is recommended to change the default password settings.

Choose a password that your can easily remember or write it down. If you forget your password the only option is to reset your Technicolor Gateway. For more information, see *"12.6 Reset to Factory Defaults" on page 139*.

Protected items

The following items are protected by these is will secure access to:

- The Technicolor Gateway GUI.
- The embedded FTP Server. for more information, see "8.3 The FTP Server" on page 96.
- The Command Line Interface (CLI).
 For more information, see The Command Line Interface (CLI).

How to change your password

Proceed as follows:

- 1 On the Toolbox menu, click User Management.
- 2 In the Pick a task list, click Change my password.
- 3 Enter your new password and click OK.
- 4 Your new password is now active. The next time that you log on to the *Technicolor Gateway GUI* you will have to enter this password.

This password will also be used by the CLI, network file server and FTP server.

For more information about the CLI, see "8 Sharing Content on your Technicolor Gateway" on page 87

For more information about the network file server and FTP server, see "8 Sharing Content on your Technicolor Gateway" on page 87

4.2 Backing Up/Restoring your Configuration

Introduction

Once you have configured your Technicolor Gateway to your needs, it is recommended to backup your configuration for later use. This way you can always return to your working configuration in case of problems.

Backing up your configuration

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "4.1 Technicolor Gateway GUI" on page 42.
- 2 On the Technicolor Gateway menu, click Configuration.
- 3 In the Pick a task list, click Save or Restore Configuration.
- 4 Under Backup current configuration, click Backup Configuration Now.
- 5 The Technicolor Gateway prompts you to save your backup file.
- 6 Save your file to a location of your choice.

Do not edit the backup files, this may result in corrupt files making them worthless as configuration backup.

Restoring your configuration

Proceed as follows:

1

- 1 Browse to the Technicolor Gateway GUI. For more information, see "4.1 Technicolor Gateway GUI" on page 42.
- 2 On the **Technicolor Gateway** menu, click **Configuration**.
- 3 In the Pick a task list, click Save or Restore Configuration.
- 4 Under Restore saved configuration, click Browse and open your backup file.



Backup files usually have.ini as extension.

5 The Technicolor Gateway restores your configuration.

4 CONFIGURATION TOOLS

4.3 The Command Line Interface (CLI)

Introduction

The CLI allows you to perform a command-based configuration of the Technicolor Gateway:



The CLI is intended for advanced users only!

Accessing the CLI

Users can access the Command Line Interface:

- From the a local network or the Internet via:
 - A Telnet session For more information, see "4.3.1 Access the CLI via Telnet" on page 50.
 - The Technicolor Gateway GUI For more information, see "4.3.3 Access the CLI from the GUI" on page 53.
- Via serial connection to the Console interface.
 For more information, see "4.3.2 Access the CLI via a Console Connection" on page 51.

4.3.1 Access the CLI via Telnet

Requirements

- Your computer must be connected to the Technicolor Gateway. For more information, see "3.3 Connecting Your Network Devices to the Technicolor Gateway" on page 30.
- For Microsoft Windows 7 and Vista: the Telnet service must be enabled on your computer.
 For more information, consult Windows' help.

Access via a local Telnet Session

Proceed as follows:

- 1 Open the **Command Prompt** or **Terminal**.
- 2 Type telnet followed by the IP address of the Technicolor Gateway (the default IP is **192.168.1.254**) or the DNS name assigned to your Technicolor Gateway (by default **dsldevice.lan**):

telnet 192.168.1.254

3 The CLI now prompts you to log in. For more information, see "Login" on page 55.

Remote access

It is also possible start a CLI session from the Internet. For more information, see "4.4 Access From the Internet" on page 58.

4.3.2 Access the CLI via a Console Connection

Introduction

The console port on the Technicolor Gateway allows you to access your Technicolor Gateway via a serial connection. This has the advantage that you do not need IP connectivity to be able to connect.

When the Technicolor Gateway starts up, it will send traces to the serial console allowing you to follow the boot process of the Technicolor Gateway.

Requirements

To be able to connect to the serial interface your will need the following:

- One normal straight through RJ45 Ethernet cable
- One RJ45-to-DB9 convertor

If this item is not included in your box, contact your service provider to purchase one.



Only use the convertor provided by your service provider. Other convertors may use other pin layouts and might not be able to pass the signal correctly. For more information about the pin layout of this convertor, see *"12.7 RJ45-to-DB9 Pinout" on page 141.*

 Terminal software to connect your computer to the Technicolor Gateway over a serial connection (for example, Microsoft HyperTerminal).

Procedure

Proceed as follows: Step 1: Connect the cables. Step 2: Setup the terminal connection.

Step 1: Connect the cables

Proceed as follows:

- 1 Plug the RJ45-to-DB9 connector into your computer's serial port.
- 2 Plug one end of the Ethernet cable in the RJ45-to-DB9 connector.
- 3 Plug the other end into the Technicolor Gateway's console port.



Step 2: Setup the terminal connection

Proceed as follows:

- 1 Open your terminal.
- 2 Establish a connection with the following parameters:
 - Baudrate: 115200 bits per second (bps)
 - Data bits: 8
 - Parity: None
 - Stop bits: 1
 - Flow control: None
- 3 Make sure that your session does not interpret received data. This may cause problems when upgrading your Technicolor Gateway via the CLI. To avoid this use the following settings:
 - Emulation: ANSIW
 - Telnet terminal ID: VT100
 - To access these setting on Microsoft HyperTerminal:
 - 1 On the File menu, click Properties.
 - 2 Click the Settings tab.
- 3 You are now connected to the Technicolor Gateway's serial interface. The Technicolor Gateway now waits for you to enter your user name and password. For more information, see "4.3.4 Using the CLI" on page 55.

Traces

You can also use the CLI for tracing. The following types of traces are available:

Startup traces

When the Technicolor Gateway starts up, it will send traces to the serial console allowing you to follow the boot process of the Technicolor Gateway. To view the startup traces, restart or power on your Technicolor Gateway after setting up the terminal connection.

Real-time traces

Press:

- CTRL+Q, to start displaying the real-time traces.
- CTRL+S, to stop displaying the real-time traces.

4.3.3 Access the CLI from the GUI

Procedure

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "4.1 Technicolor Gateway GUI" on page 42.
- 2 In the **Display Level** list, click **Expert**.

Technicolor Gateway

- 3 In the upper-right corner, click **CLI**.
- 4 The Technicolor Gateway CLI pages page appears:

🏉 Technicolor Gateway CLI Commands -	Windows Internet Explorer			- • •
← → http://dsldevice.lan/cli.	.htm		👻 😽 🗙 📴 Bing	• ٩
🔶 Favorites 📄 Technicolor Gateway	y CLI Commands		🏠 🔻 🔝 👻 🖶 💌 Pa	ige ▼ Safety ▼ Tools ▼ 🕢 ▼
Technicolor Gateway				technicolor
CLI Commands	Home > CLI	Technicolor Gate	eway Cl I	
Service Service Service Statecheck Statecheck Statecheck Config Connection Seconsection Seconsection	Welcome to the Technicolo configuration. You can issu		ssigned to give you easier access to de	stailed
eth atm finate f				
Done			Internet Protected Mode: On	🖓 🔻 🔍 100% 👻 📑

The CLI command tree

On the left of the page, you can find the command tree. This tree contains all CLI commands that are available for configuration.

Command types

The commands are three types of commands that can be identified by the icon displayed next to the command:

lcon	Description
	Command group
	Function that does not require input. The results are immediately displayed.
₽	Function that requires input. When you click on this function, a page will appear where you can enter the parameters. Parameters that are required will be explicitly labelled as required.

Executing a command

Proceed as follows:

- 1 In the command tree, select the command that you want to execute.
- 2 The command page appears:

dhcp	client ifadd	
Creat	te a DHCP client.	
intf	Required {Internet lan1 dmz1 guest1} The name of the interface on which a DHCP Client is defined.	
		Apply Clear

Enter in the command parameters and click Apply.

Save your changes!



The changes that you make are only temporary and will be lost after restarting the Technicolor Gateway. You must click **Save All** to save your changes permanently.

4.3.4 Using the CLI

Login

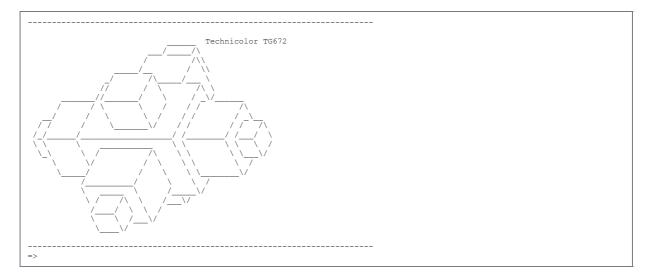
When starting a CLI session you will have to go through the following steps:

1 When prompted, enter your user name and password.



For more information, see "4.1.3 Protecting Access to the Technicolor Gateway" on page 47.

2 After entering your user name and password, the Technicolor Gateway banner pops up, followed by the CLI prompt.



3 You can now start entering your commands.

Menu mode

Next to the command-based input, the CLI also features an intuitive menu-based interface. This is mode gives you a quick overview of the available commands and is ideal for users who are just starting to use the CLI.

To use start this interface execute the **menu** command.

		menu ——		
[contentsharin [dsd] [config] [dns] [expr] [ip] [memm] [pptp] [software] [upgrade] [wansensing]	[firewall] [ptrace] [connection] [dyndns] [hostmgr] [ipgos] [mlp] [router] [syslog] [upng] [webserver]	<pre>[printersharin [statecheck] [cwmp] [env] [ids] [label] [mobile] [script] [system] [user] [wireless]</pre>	<pre>[pwr] [tftp] [debug] [eth] [igmp] [language] [nat] [snmp] [tls] [vfs] [xds1]</pre>	[service] [aaa] [dhcp] [atm] [interface] [mbus] [ppp] [sntp] [tunnel] [voice]
	<0k>		<canc< td=""><td>el></td></canc<>	el>

Use:

- The arrow keys to select a command(group)
- The TAB key to switch between the **OK** and **Cancel** button.
- CTRL+C to switch back to exit the menu mode.

The Help Command

Execute help or ? from top level to list all available commands and command groups for the Technicolor Gateway

You can execute the **help** command from each command group selection. This results in a list of the available commands (and underlying command groups, if available) in this particular command group.

Example:

```
[firewall]=>help
Following commands are available :
config : Display/Modify firewall configuration.
clear : Clear firewall configuration.
list : Display firewall configuration.
Following command groups are available :
chain debug level rule
```

Executing, for example, **:help firewall** from any level gives the same result as executing help from the firewall command group.

Command Completion

When you type the first letters of your command, you can complete the command by pressing TAB.

To be able to complete the command automatically, the part to be added must be unique. If the part is not unique, the CLI will provide a list of possible commands.

Completion works for:

- Command groups
- Commands
- Options
- Values coming from a list

Command Line Navigation

Press:

- CTRL+A to go to the beginning of the command line.
- CTRL+L to go to the end of the command line.

Breaking off Commands

You can break off a command by pressing CTRL+G or CTRL+C. This can be useful in a situation where a user is prompted to enter a value which he does not know and wants to quit the command. Instead of being prompted over and over again for the same value, this allows to quit the command and return to the command line prompt.

Example:

In the example below, CTRL+C is pressed after the third prompt:

```
[firewall chain]=>add
chain =
Required parameter (use ctrl-c or ctrl-g to abort)
chain =
Required parameter (use ctrl-c or ctrl-g to abort)
chain =
[firewall chain]=>
```

History of Commands

Use the UP and DOWN arrow keys to select a previously executed command. Press ENTER to execute the selected command.

More information

For a complete list of available CLI commands, you can download the Technicolor TG672 CLI reference Guide from <u>www.technicolor.com</u>.

4.4 Access From the Internet

Modes

To access your Technicolor Gateway from the Internet, you can choose between two modes:

- Permanent Mode (Remote Access): The remote session ends when you disable remote assistance or after restarting your Technicolor Gateway.
- Temporary Mode (Remote Assistance): The remote session ends when you disable remote assistance, after restarting your Technicolor Gateway or after 20 minutes of inactivity.

To enable Remote Assistance / Remote Access.



Enabling remote assistance is only possible when you are connected to the Internet.

To enable remote assistance/access:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "4.1 Technicolor Gateway GUI" on page 42.
- 2 Complete and check the following parameters:
 - Mode:

Select the mode that you want to use.

- URL: Contains the URL that must be used to access the Technicolor Gateway from the Internet.
- User name and Password: Contains the user name and password are needed to access your Technicolor Gateway remotely. If wanted you can change the automatically generated password in the **Password** box.
- 3 Click Enable Remote Assistance.

Accessing your Technicolor Gateway from the Internet

Proceed as follows:

- 1 Open your web browser.
- 2 Type the URL that was listed in the URL field on the Remote Assistance page (for example https://141.11.249.150:51003).



Example: https://141.11.249.150:51003 can be replaced by https://mygateway.dyndns.org:51003.

- 3 Enter the user name and password that you specified on the **Remote Assistance** page.
- 4 The Technicolor Gateway GUI appears.

It is now possible for a remote user to access your Technicolor Gateway via the specified URL using the provided user name and password.

5 The Technicolor Gateway Wireless Access Point

Introduction

This section will help you set up your wireless network.

What you need to set up a wireless network

To set up a wireless network, you need the following components:

- A Wireless Access Point (already integrated into your Technicolor Gateway)
- A Wireless client the device that you want to connect (for example, a computer, smartphone, network printer,...)

Wireless Access Point

The wireless access point is the heart of your wireless network. The wireless access point:

- Connects different wireless devices.
- Secures the data sent over wireless connection.

The Technicolor Gateway comes with an integrated wireless access point.

Wireless client

The wireless client allows you to connect a device, typically a computer, to a wireless access point. Both built-in and external (for example via USB) clients are available.



Devices like media players and smartphones may also have a built-in wireless client. Check the documentation of your device for more information.

Check the documentation of your computer if you are not sure if your computer is equipped with a wireless client.

Configuring your wireless clients

For more information on how to establish a wireless connection to the Technicolor Gateway, see "5.1 Connecting Your Wireless Client via WPS" on page 60 and "5.2 Connecting Your Wireless Client without WPS" on page 62.

Secure your wireless connection!

When using an unsecured connection, everyone who is within the range of your Technicolor Gateway can access your network. If not:

- People may use your connection to access the Internet.
- Hackers may use your connection to commit computer crimes.

You can easily prevent this by securing your wireless access point. For more information, see "5.3 Securing Your Wireless Connection" on page 63.

5.1 Connecting Your Wireless Client via WPS

WPS

Wi-Fi Protected Setup (WPS) allows you to add new wireless clients to your local network in a swift and easy way, without the need to enter any of your wireless settings (network name, wireless key, encryption type).

Requirements

• Your wireless client must support WPS. Check the documentation of your wireless client for this.

Both Windows 7 and Windows Vista Service Pack 1 have native WPS support.

Your Technicolor Gateway must use WPA(2)-PSK encryption (default encryption) or no encryption. WPS with WEP encryption is not possible.

Procedure

Proceed as follows:

1 Shortly press the WPS button on the Technicolor Gateway:



- 2 The WPS button LED starts blinking orange. This indicates that the **Technicolor Gateway** is now searching for wireless clients that are in registration mode. You now have two minutes to start WPS on your wireless client.
- 3 Start WPS on your wireless client.
- 4 The Technicolor Gateway is now exchanging the security settings.
- 5 At the end of the procedure the status of the WPS LED will change to either of the following:
 - Solid green

This indicates that you have successfully registered your wireless client. You are now connected to the Technicolor Gateway network.

Blinking red

This indicates that the Technicolor Gateway could not find your wireless client. Use the same procedure to try again (you do not need to wait until the LED turns off).

Troubleshooting

If you are having trouble connecting your wireless client via WPS, this may be cause by one of the following reasons:

WPS can not be correctly executed: Configure your wireless manually. For more information, see "5.2 Connecting Your Wireless Client without WPS" on page 62.

5 THE TECHNICOLOR GATEWAY WIRELESS ACCESS POINT

- Your wireless client is out of range: If possible move your wireless client closer to your Technicolor Gateway or use a wireless repeater to extend the range of your wireless network.
- Another device is interfering on the selected wireless channel: Change the wireless channel of your Technicolor Gateway. For more information, see "Change the wireless channel" on page 137.

5.2 Connecting Your Wireless Client without WPS

Before you start

Before you can connect a wireless client (for example, a computer) to your wireless network you need to know the wireless settings that are currently used by the Technicolor Gateway, i.e.:

- The Network Name (SSID)
- The wireless key

What Network Name (SSID) is my Technicolor Gateway using?

If you did not change the SSID, your Technicolor Gateway uses the Network Name that is printed on the bottom panel label of your Technicolor Gateway.

What wireless key is my Technicolor Gateway using?

If you did not change the security settings, no wireless key is used.



If your service provider did choose to use a default wireless key, use the **Wireless Key** that is printed on the bottom panel label of your Technicolor Gateway.

Forgot your wireless key?

If you have changed the wireless settings manually and you can't remember your settings, try one of the following:

- 1 Use a computer that is already connected to your network.
 - If none of your computers is connected yet, connect one with an Ethernet cable. For more information, see "3.3.2 Setting up a Wired Connection" on page 32.
- 2 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 3 On the Office Network menu, click Wireless.
- 4 In the upper-right corner, click **Details**.
- 5 Under:
 - Configuration, you can find the network name (SSID).
 - Security, you can find the encryption.

Connecting your wireless client

Configure your wireless client with the same wireless settings as your Technicolor Gateway (network name and wireless key). For more information, consult the documentation of your wireless client.

5.3 Securing Your Wireless Connection

Introduction

You can protect the wireless communication between the wireless clients and your Technicolor Gateway with a wireless key. This means that:

- Only clients which use the correct Network Name (SSID) and wireless key can connect to your network.
- All data passing through your wireless access point is secured and encrypted.

Encryption types

Over the years a number of encryption types have been developed. The list below gives you an overview of the supported encryption types ordered by descending security level; you will find the highest level of security at the top of the list:

For Enterprise environment(s):

RADIUS Server (WPA):

Wireless clients first need to authenticate to the Remote Authentication Dial In User Service (RADIUS) server. The RADIUS server then provides the wireless key that must be used to encrypt its data. The RADIUS server regularly updates this key at a specified interval.

If you do not have a RADIUS server in your network, use on the of the encryption types for home and small office environment.

For home or small office environment:

WPA-PSK Encryption:

The wireless connection is secured with a pre-shared key that has been defined by the user. Wireless clients must be configured with this key before they can connect to the Technicolor Gateway. The Technicolor Gateway supports the following WPA versions (ordered by descending security):

WPA2:

The most recent and most secure version of WPA. Choose this version if you are sure that all your wireless clients support WPA2.

• WPA+WPA2:

This is a mixed mode. In this mode WPA2, is the preferred encryption type but wireless clients do not support WPA2, can still use WPA as encryption type. Choose this option if not all of your wireless clients support WPA2 or if you are not sure. Wireless clients that support WPA2 will use WPA2, the others will use WPA.

► WPA:

1

The first version of WPA. Choose this option if you are sure that none of your wireless clients support WPA2.

If you want to configure WPA2 on the built-in wireless utility of Windows XP Service Pack 2 (SP2), you first have to:

■ Upgrade your Windows XP to Service Pack 3.

- or -

- Install the following update: <u>http://support.microsoft.com/kb/917021</u>.
- WEP Encryption:

The least safe encryption type used for wireless connections. Like WPA-PSK it uses a user-defined key, but WEP has been proven to have security issues.



Although the Technicolor Gateway allows you to use WEP or no security, we strongly advise against using one of them! Use **WPA(2)-PSK** or **RADIUS** instead.

Configuration

To secure your wireless network with:

- WPA encryption (via RADIUS), continue with "5.3.1 Configuring WPA Encryption" on page 65.
- WPA-PSK encryption, continue with "5.3.2 Configuring WPA-PSK Encryption" on page 66.

5.3.1 Configuring WPA Encryption

Procedure

Proceed as follows:

- 1 Open the Technicolor Gateway GUI.
- 2 Under Office Network, click Wireless.

Mireless:

- 3 The Wireless Access Point page appears. In the upper-right corner, click Configure.
- 4 Under Encryption, select Use WPA Encryption.
- 5 The following RADIUS settings are now available for configuration:
 - WPA Radius IP: enter the IP address of your RADIUS server.
 - WPA Radius Port: enter the WPA Radius Port.
 - WPA Radius Key: enter the WPA Radius Key.
 - WPA Version: select the WPA version of your choice. For more information, see "Encryption types" on page 63.
- 6 Click Apply to immediately apply your changes.
- 7 Reconnect your wireless client(s) to the Technicolor Gateway using these new security settings. For more information, see "5.1 Connecting Your Wireless Client via WPS" on page 60 or "5.2 Connecting Your Wireless Client without WPS" on page 62.

5.3.2 Configuring WPA-PSK Encryption

Procedure

Proceed as follows:

- 1 Open the Technicolor Gateway GUI.
- 2 Under Office Network, click Wireless.

Mireless:

- 3 The Wireless Access Point page appears. In the upper-right corner, click Configure.
- 4 Under Encryption, select Use WPA-PSK Encryption.
- 5 In the WPA-PSK Encryption Key box, type a the key of your choice. The key must be in one of the following formats:
 - ▶ 8 to 63 alphanumeric characters. For example: MyKey123
 - ▶ 8 to 64 hexadecimal characters (characters from 0 to 9 and from A to F). For example: C54F48A5.
- 6 In the WPA-PSK Version list, click the WPA-version of your choice. For more information, see "Encryption types" on page 63.
- 7 Click Apply.
- 8 Reconnect your wireless client(s) to the Technicolor Gateway using these new security settings. For more information, see "5.1 Connecting Your Wireless Client via WPS" on page 60 or "5.2 Connecting Your Wireless Client without WPS" on page 62.

5.4 Advanced Wireless Features

Introduction

This section introduces you to a number of advanced features.

For more detailed information on how to configure and use these features, check the documentation on <u>www.technicolor.com</u>.

Multiple SSID (MSSID)

This feature allows you to turn your access point into up to four virtual access points. Each virtual access point has its own settings (SSID, encryption,...) and can be isolated into a separate network to keep your main network secured.

Access Control List (ACL)

This feature allows you to grant or deny to access for specific devices to your wireless network based on their MAC address.

5 THE TECHNICOLOR GATEWAY WIRELESS ACCESS POINT

6 Telephony

Voice over IP (VoIP)

VoIP is a technology in which telephone calls are made over the Internet. This allows you to save on communication costs, especially for long-distance calls.

The expensive solution

To be able to make your phone calls over the Internet you could either:

- Buy an IP phone.
 These IP phones are special phones that you can connect to your Internet Gateway.
- Install VoIP software on your computer and make your phone calls via your computer.

The Technicolor solution

With the Technicolor Gateway you can make both VoIP and traditional telephone calls using a traditional analogue phone or A DECT phone.

If your Technicolor Gateway is not powered, the traditional telephone network (if connected) will automatically selected. This way you are still able to make emergency calls.

In this chapter

This chapter covers following topics:

Торіс	Page
6.1 Setting Up Your Telephone Network	70
6.2 Address Book	75
6.3 Telephony Services	77
6.4 Viewing Call Logs	82

6.1 Setting Up Your Telephone Network

Procedure

To set up your telephone network, follow these steps:

- 1 Your Technicolor Gateway has an integrated DECT base station. This means that you can register your DECT phone directly to the Technicolor Gateway. For more information, see "6.1.1 Connecting a DECT Phone to Your Technicolor Gateway" on page 71.
- 2 Connect your traditional phone(s), DECT base station or fax to the green **Phone** port(s) on the back panel of your Technicolor Gateway.
- **3** Connect your Technicolor Gateway to the traditional network. For more information, see *"6.1.2 Connection to the Traditional Telephone Network" on page 72.*
- 4 Configure the VoIP service on your Technicolor Gateway. For more information, see "6.1.3 Configuring the Technicolor Gateway VoIP Service" on page 73.

6.1.1 Connecting a DECT Phone to Your Technicolor Gateway

Introduction

The Technicolor Gateway is equipped with a DECT base station allowing you to connect up to five DECT phones. Before you can start using your DECT phone, you first have to pair it with your Technicolor Gateway.

Procedure

Proceed as follows:

- 1 Put the Technicolor Gateway in pairing mode. You can do either of the following:
 - > Press the DECT button on the Technicolor Gateway until the DECT LED on the front panel starts flashing.



- Via the Technicolor Gateway GUI.
 - 1 On the Toolbox menu, click Telephony.
 - 2 Under Pick a task, click DECT pairing.

2 Put your DECT phone in pairing mode. Consult your DECT phone's user documentation to register your DECT phone.

3 Your DECT phone prompts you that If the registration is successful, the message "Registered to base x" appears on the screen of your Technicolor DECT phone.

6.1.2 Connection to the Traditional Telephone Network

Combining VoIP with the traditional telephone network

Some service providers use the traditional telephone network (PSTN) as a backup solution for your VoIP connection. This way, you can still make calls over the traditional network if the VoIP service is down (for example, your Technicolor Gateway is powered off).



Be aware that, if you are not connected to the traditional telephone network, emergency calls will not be possible when your Internet connection is down or your Technicolor Gateway is powered off.

Applicability

If your Technicolor Gateway:

- Has an integrated filter, no additional connections are needed.
 - The DSL port must be directly connected to your telephone outlet. Do not put any filter or splitter between them!



How do I know if my Technicolor Gateway has an integrated filter?

Check if the product name printed on the label of your Technicolor Gateway ends with "wlF" (with Integrated Filter). If this suffix is not present, then your Technicolor Gateway does not have an integrated filter.

- Does not have an integrated filter, check if your Technicolor Gateway has a PSTN port on the back panel (for more information, see "PSTN Port (optional)" on page 13). If your Technicolor Gateway has:
 - A PSTN port: Connect the PSTN port to the Phone output of your filter or splitter.
 - No PSTN port, no connections are needed. This is a VoIP-only variant. All calls passing through the Technicolor Gateway will be done via VoIP.

6.1.3 Configuring the Technicolor Gateway VoIP Service

Introduction

If your VoIP service has not been configured yet, follow the instructions in this section.

How can I check if the VoIP service has already been configured?

If the Voice LED is:

- Solid or blinking green then the VoIP service is configured correctly. No configuration is needed.
- Off then telephony service is not configured (yet). Follow the instructions below.

Requirements

Your Internet connection must be up and running before you can configure Internet telephony.

Configuring the VoIP settings

Proceed as follows:

- 1 Enter the proxy and registrar settings.
- 2 Enter your VoIP account settings.

Enter the proxy and registrar settings

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 2 On the Toolbox menu, click Telephony.
- 3 In the Navigation bar, click Expert configure.
- 4 Complete the following fields based on the settings provided by your VoIP provider:
 - ► Proxy:

Type the URL (for example: sip.provider.com) or IP address of the proxy.

- **Registrar:** Type the URL (for example: sip.provider.com) or IP address of the registrar.
- Registrar Port and Proxy Port.
 In most cases the default port (5060) will be used. Only change these values if your provider is using other port numbers.
- 5 Click Apply.

Enter your VoIP account settings

Proceed as follows:

- 1 In the Navigation bar, click **Configure**.
- 2 Under Service Configuration, select Enable Telephony.
- 3 Under Telephone Numbers, complete the following fields:
 - ► SIP URI:

The Uniform Resource Identifier (URI) of your SIP account (for example: 035051979, john.doe,...). This is the telephone number that people have to dial to call you.

• Username:

The user name of your VoIP account (for example: 035051979, john.doe,...).

Password:

The password of your VoIP account.

• Displayname:

The name that you want people to see on the display of their phone when you are calling.

Your VoIP provider may not support this feature.

Abbreviated number:

An internal number to call the phones associated with this VoIP account.

► Port:

The phone port that you want to associate with this VoIP account. select

- All to use this VoIP account for all connected phone (fixed + DECT).
- All DECT to use this VoIP account for all connected DECT phones.
- DECT 1/2/3/4/5 to use this VoIP account for one specific DECT phone. You can find the number of your DECT phone its display.
- Phone 1/2 to use this VoIP account for the phone connected to the Phone 1/2 port of your Technicolor Gateway.
- 4 Click Apply.

Verifying Telephone Connectivity

Proceed as follows to verify the voice connection:

- 1 Make sure the Technicolor Gateway is turned on.
- 2 Make sure the Internet telephony service is enabled and configured. The Voice/DECT LED must be solid green.
- 3 Pick up your phone, wait for the dialling tone, and dial the number.

6.2 Address Book

Introduction

The Address Book page allows you to:

- Store your contacts on the *Technicolor Gateway GUI*.
- Initiate a call or send a message by clicking the phone number or e-mail address in the contact details.

Everyone with access to the Technicolor Gateway GUI can view and use the address book.

Accessing the Address Book page

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 2 On the Toolbox menu, click Address Book.
- 3 The Address Book page appears.

Add	ress Bo	ook			
•	Contacts				
		LastName	FirstName		Phonenumber
		Doe	Jane	Mobile:	003212345678 Edit Delete
				Other or SIP uri:	jane.doe@voipprovider.com
				E-mail:	jane.doe@provider.com
		Smith	Robert	Mobile:	0032498765432 Edit Delete
				Other or SIP uri:	robert.smith@voipprovider.com
				E-mail:	robert.smith@provider.com
					Add

For each contact, you can provide the following information:

- Business: to make a call to the contact's business telephone number
- Home: to make a call to the contacts home telephone number
- Mobile: to make a call to the contact's mobile telephone number
- Other or SIP uri: to make a call to the contact's VoIP telephone number
- E-mail to send an E-mail message to the contact with your e-mail client.

Managing contacts

Click	То
Add	Add a contact
Edit	Edit a contact
Delete	Delete a contact

All information provided per contact is optional except for the last and first name. The information can be updated or completed at any time.

Making a phone call from the address book

Proceed as follows:

1 Browse to the Address Book page.

- 2 Click on the phone number of your contact.
- **3** The following page appears:

Dialing Dialing to Smith@mobile Pick up a phone to proceed. Click on 'Cancel' to abort. Cancel Done

In case you are using:

- A DECT phone, the phone number of your contact appears on the screen.
- A fixed phone, your phone starts to ring.
- 4 Pick up the phone.
- 5 The Technicolor Gateway is now initiating the call. Your contact's phone is now ringing.
- 6 At the end of the conversation, click **Done** to go to the **Last Calls** page. This page allows you to view the statistics of your last calls (including the call that you just made).

Home > Toolbox	> Telepl	hony			Overview Deta	ails Configure Ex	pert Configure
	Tele	ephony _{Last Calls}					
			ow shows the 10 last call: Logs' to view the comple Local Number		ls.	Gateway. Open 'Tel	lephony Port
		2000-01- 02T01:32		Smith		0 days, 0:21:12	Phone 1
		2000-01- 01T01:30	6	Smith) 🗐		Phone 1
		2000-01- 01T01:26	C.	Smith) 🗐		Dect 1
		2000-01- 01T01:20	C.	Doe		0 days, 0:27:09	Dect 1



You can use the buttons in the **Remote Number** column to make a new call to one of the contacts in your call log.

6 TELEPHONY

6.3 Telephony Services

Introduction

Telephony services add extra functionality to your phone. For example: putting a call on hold, transferring calls,...

Requirements

Before you can use a service, must both be:

- 1 Supported by your service provider.
- 2 Activated on your Technicolor Gateway.

Checking if a telephone service is activated/supported

To check which services are supported or activated, proceed as follows:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "4.1 Technicolor Gateway GUI" on page 42.
- 2 On the Toolbox menu, click Telephony.
- 3 In the *Navigation bar*, click **Configure**.
- 4 In the Pick a task list, click View Telephony Services.
- 5 Under Telephony Services, you can see the services that are supported by your provider.

Service	Activation Code	Deactivation Code	Activated
Call Hold	*94	#94	Yes
Call Waiting	*43	#43	Yes
Call Waiting On Call Basis	*43*	#43*	Yes
Call Transfer	*96	#96	Yes
Conference Call (3 Party);	*95	#95	Yes
Calling Line Identification Presentation	*30	#30	Yes
Warm Line	*53	#53	No

In the Activated column, you can see if this service is also activated on the Technicolor Gateway.

6 To (de)activate a service, proceed with "6.3.1 Activating a Telephony Service on your Technicolor Gateway" on page 78.

6.3.1 Activating a Telephony Service on your Technicolor Gateway

How can I (de)activate a service on my Technicolor Gateway?

You can (de)activate services in two ways:

- Via the Technicolor Gateway GUI.
- Via (de)activation codes on your phone.

Activating a Telephony Service via the Technicolor Gateway GUI

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "4.1 Technicolor Gateway GUI" on page 42.
- 2 On the Toolbox menu, click Telephony.
- 3 In the Navigation bar, click **Configure**.
- 4 In the Pick a task list, click View Telephony Services.
- 5 In the Navigation bar, click Configure.
- 6 Under Telephony services you can now activate or deactivate the services of your choice:

Service	Activation Code	Deactivation Code	Activated
Call Hold	*94	#94	V
Call Waiting	*43	#43	V
Call Transfer	*96	#96	V
Conference Call (3 Party);	*95	#95	V
Calling Line Identification Presentation	*30	#30	V
Warm Line	*53	#53	

To:

- Activate a service select the check box next to the service.
- Deactivate a service clear the check box next to the service.
- 7 Click Apply.

Activating a Telephony Service via Your Phone

To (de)activate one of the services just dial the corresponding code on your phone. For example, to activate **Call Hold** dial *94; to deactivate the service dial #94.

To know which code to use:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "4.1 Technicolor Gateway GUI" on page 42.
- 2 On the Toolbox menu, click Telephony.
- 3 In the Navigation bar, click Configure.
- 4 In the Pick a task list, click View Telephony Services.
- 5 In the Telephony Services table, you can find the activation and deactivation codes.

Service	Activation Code	Deactivation Code	Activated
Call Hold	*94	#94	Yes
Call Waiting	*43	#43	Yes
Call Waiting On Call Basis	*43*	#43*	Yes
Call Transfer	*96	#96	Yes
Conference Call (3 Party);	*95	#95	Yes
Calling Line Identification Presentation	*30	#30	Yes
Warm Line	*53	#53	No

6.3.2 Common Telephony Services

Introduction

This section provides an overview of the functions that will be available if you activate one of the following services:

- Call Hold service
- Call Waiting service
- Conference Call (3 Party) service
- Call Transfer

For more information on the other services, please contact your service provider.

Call Hold service

If the **Call Hold** service is activated, you can use the following functions:

То	Press	Illustration
Put an active call on hold and enable a call set up (the dial tone is generated)	R, 2	A B active You Press R, 2 on hold dial tone You
Terminate the call on hold	R, o	A B active on hold You press You Press You Press A B A B A C You Press A C You press
Terminate an active call and switch to the call on hold	R, 1	A B You press active you hold R, 1 A active You
Retrieve the call on hold (when there is no active call)	R, 1	A B On hold You press R, 1 You
Terminate an active call and enables a call set up (the dial tone is generated)	R, 9	A B active on hold You Press R, 9 dial tone You

6 TELEPHONY

Call Waiting service

If the **Call Waiting** service is activated, you can use the following functions:

То	Press	Illustration
Terminate an active call and switch to an incoming call	R, 1	A B active incoming You press You Press R, 1 You
Reject an incoming call	R, o	A B You press active You Press R, 0 A B A C C C C C C C C C C C C C C C C C
Switch between an active call and a call on hold	R, 2	A B You press active you hold You press R, 2 On hold You
Switch between an active call and an incoming call	R, 2	A B active incoming R, 2 A B You press R, 2 On hold active You

Conference Call (3 Party) service

If the Conference Call (3 Party) service is activated, you can use the following functions:

То	Press	Illustration
Establish a conference call (or 3 party connection)	R, 3	A B You press active active Vou
During a conference call: put B and C on hold	R, 2	A B active A B A B You press R, 2 On hold You
During a conference call: retrieve B and C when they are on hold	R, 3	A B on hold You press You You A A B active You

Call Transfer

If the $\ensuremath{\textbf{Call}}$ $\ensuremath{\textbf{Transfer}}$ service is activated, you can use the following functions:

То	Press	Illustration
Transfer a call	R, 4	A active B on hold A active B You press R, 4 You

6.4 Viewing Call Logs

Introduction

The Call Logs page on the Technicolor Gateway GUI lists:

- Successful incoming calls.
- Missed incoming calls.
- Successful outgoing calls.
- Failed outgoing calls.

Viewing the telephony statistics

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Toolbox menu, click Telephony.
- **3** The **Telephony** page appears:

ome > Toolbox	: > Telep	phony			Overview	Deta	ils Configure Ex	pert Configure
	Tel	The table belo	ow shows the 10 last c Logs' to view the com		icolor (Sateway. Open 'Tel	ephony	
		Time	Local Number	Rem	iote Number		Duration	Port
		2000-01- 02T01:32	\$	🕈 🛛 Sn	nith		0 days, 0:21:12	Phone 1
		2000-01- 01T01:30	\$	🟅 🛛 Sn	nith			Phone 1
		2000-01- 01T01:26	<pre></pre>	💲 🛛 Sn	nith			Dect 1
		2000-01- 01T01:20	\$	🟅 🛛 Do	e		0 days, 0:27:09	Dect 1

On this page you can see an overview of your last calls.

4 To view more detailed statistics, click View telephony statistics and logs in the Pick a task list.

Used icons

The call logs use the following icons to illustrate the call type:

lcon	Туре
\;	Successful outgoing phone call
\$;+	Successful incoming call
V.	Failed outgoing call
\$;	Missed incoming call

Calling a contact from the call log

You can immediately start a new call to one of these contacts by clicking the button in the **Remote Number** column.

7 Saving Energy with Your Technicolor Gateway

Code of Conduct

To prove its commitment to protect the environment, Technicolor has signed the Code of Conduct, a global agreement to reduce the power consumption of broadband access devices.

For more information, see "7.1 Code of Conduct" on page 84.

Technicolor power saving innovations

To further reduce the power consumption, Technicolor has developed the *ECO Manager*. This system constantly monitors the services provided by the Technicolor Gateway and automatically switches unused services to an ECO-friendly state. For more information, see *"7.2 ECO Manager"* on page 85.

Next to this automated tool, you can also choose to manually disable services that you will not be using. For more information, *"7.3 Manually Switching Off Services to Reduce Power" on page 86*.

7.1 Code of Conduct

Power states

Code of Conduct provides rules for the power consumption in:

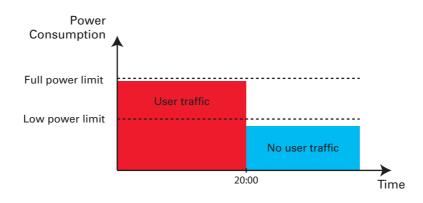
- Full power state: This is the normal operation mode of the
 - This is the normal operation mode of the device, where all functionality is enabled.
- Low power state: When there is no user traffic on the device, the device should switch to low power mode. This is a state in which devices are only allowed to use a limited amount of energy to be able to power its components and respond to user activity.

Example

Take the following example:

- The user switches off his computer at 20:00.
- There are no other devices connected to the Technicolor Gateway.

The Technicolor Gateway switches to low power mode. This results in a considerable drop in the overall power consumption of the Technicolor Gateway.



7.2 ECO Manager

Introduction

The Technicolor Gateway constantly monitors the user activity and uses this information to optimise the power consumption:

For example:

- The Technicolor Gateway reduces the clock frequency of the central processor when there is no or low user activity. This lowered clock frequency will result in a lower power consumption of the Technicolor Gateway.
- Disable the USB port(s) when they are not used
- Switch the wireless interface to power reduction mode.

Wireless access point power reduction mode

When the Technicolor Gateway access point switches to power reduction mode, the access point is switched off and is only power on periodically to be able to detect new clients. If new clients are detected the wireless access point is fully powered again. This is only possible if there are no devices connected to the Technicolor Gateway.

Power reduction is disabled by default, but it is possible to enable it via the Technicolor Gateway GUI.



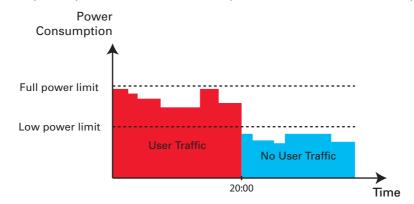
Enabling power reduction may have impact on the reliability of your wireless connection. This feature is intended for *advanced users only*.

To enable power reduction:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 2 Under Office Network, click Wireless.
- 3 In the Navigation bar, click Configure.
- 4 Under Configuration:
 - Select Power Reduction Enabled to enable power reduction.
 - Clear Power Reduction Enabled to disable power reduction.
- 5 Click Apply.

Example

If we use the same example as in the previous section, you can see that the Technicolor Gateway is now able to further reduce the power consumption in periods where less action is required from the Technicolor Gateway.



7.3 Manually Switching Off Services to Reduce Power

ECO button

If you are not using the wireless access point of your Technicolor Gateway, you might consider to disable the wireless access point permanently. This allows you to further reduce the power consumption.

To turn the wireless interface:

- Off, press the ECO (()) button until the Wireless LED is off.
- On, press the ECO ((^)) button until the Wireless LED is on.

Zero power consumption

If you will not be using your Technicolor Gateway for a longer time (for example: you are going on holiday), you should consider to turn off the Technicolor Gateway. This way no energy will be consumed at all.

However, be aware that if you turn off the Technicolor Gateway, **all services provided by the Technicolor Gateway that require access to the Internet will not be available**. For example:

- No VoIP calls can be made/received You will no longer be able to make or receive phone calls over the Internet. Your phone calls will automatically be done via the traditional phone network (if available).
- No Digital TV is provided If your set-top box is connected to your Technicolor Gateway, it will no longer be able to connect to the Internet, hence not be able to service your TV set.

8 Sharing Content on your Technicolor Gateway

Introduction

The Technicolor Gateway allows you to share the content stored on your USB storage device with other users on your network or even access this shared content from the Internet.

Features

- The Technicolor Gateway supports USB 2.0
- The following file systems are supported:
 - NTFS (optional)
 - ► FAT32
 - ► FAT16
 - ► HFS+ (optional)
 - ▶ EXT2/EXT3 (optional)
- You can connect up to five USB storage devices (via a USB hub).
- Each USB storage device can have up to 10 partitions. If your device has more partitions the extra partitions will be ignored.

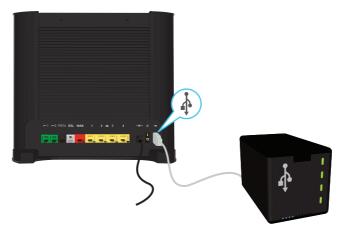
Content Sharing Servers

The Technicolor Gateway offers three types of services to share your content. The following table gives a you a brief overview of the main functions:

	Network File Server	UPnP AV Media Server	FTP Server	
Function	Store and access your data on your local network.	Make media files available for UPnP AV capable devices like Media players, Set-Top boxes from your local network.	Store and access your data from the Internet.	
Access	Read and write	Read-only	Read and write	
Accessible from	Local network	Local network	Internet and Local network	
Type of content shared	All files from all partitions and disks that are connected.	<i>Media</i> files (music, movies and pictures) from all partitions and disks that are connected.	All files that are stored in the Shared folder of the managed partition.	
For more information, see	"8.1 The Network File Server" on page 89	"8.2 The UPnP AV Media Server" on page 92	"8.3 The FTP Server" on page 96	

Configuration

All servers are *enabled by default*. The only thing that you need to do is to plug your USB memory stick or external hard disk in (one of) the USB port(s) of your Technicolor Gateway.





By using a USB hub, you can connect up to five USB mass storage devices to the Technicolor Gateway.

Do not remove your USB storage device without stopping it first, otherwise data might be lost! For more information, see "8.5 Safely Removing your USB Storage Device" on page 100.

8.1 The Network File Server

Introduction

The Network Server allows you to share the content on your USB storage device(s) with other devices that are connected to your local network (mostly computers).

These devices have *read and write access* to this USB device(s).

Configuration

The Network File Server is enabled by default and ready for use.

To change the default settings, proceed as follows:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 2 On the Tools menu, click Content Sharing.
- 3 In the Navigation bar, click **Configure**.
- 4 Under Network File Server (Windows Networking), you can change the following settings:
 - Server Name: Enter the name that you want to use to access the Technicolor Gateway.
 - Server Description:
 - Add a short description for what kind of data is stored on the USB storage device.
 - Workgroup: Enter the same workgroup as used by your computer(s).
 - Server Enabled: Select this option to enable the Network File Server
- 5 Click Apply.
- 6 All users connected to the Technicolor Gateway can now access the data on stored your USB storage device.
- 7 If you want to limit the number of folders that can be accessed, continue with "8.4 Managing your Shared Content" on page 98.

Accessing the shared content on Windows

Proceed as follows:

- 1 Open Windows Explorer.
- 2 In the address bar, type two backslashes followed by the name that you entered in the **Server Name** box (default: **\\Technicolor**).



If you did not provide a server name, type \\192.168.1.253.

3 An Explorer windows appears. The storage devices that are attached to your Technicolor Gateway are listed as folders.

				X
COO V 💌 K Ketwork K TECHNICOLOF	< ► • +	Search TECHNICOLOR		Q
Organize Network and Sharing Center	View remote printe	rs 🖬	•	?
🔆 Favorites	Disk_a1 Share			
🥽 Libraries				
🤞 Homegroup				
🐏 Computer				
🗣 Network				
1 item				

If the storage device has multiple partitions an index number will be added at the end (for example: Disk_a1 and Disk_a2).

If multiple storage devices are inserted the first one is listed as Disk_a1, the second one as Disk_b1, and so on. If the partition is a managed partition, only the **Media** and **Shared** folders of the managed partition are displayed:

	R 🕨 👻 😽 Search TECHNICO	م
Organize 👻 Network and Sharing Center	View remote printers	0
 ☆ Favorites ⇒ Libraries ⊗ Homegroup ™ Computer 	Media Share Shared Share	
🗣 Network		
2 items		

For more information on managed partitions, see "8.4 Managing your Shared Content" on page 98.

4 If you plan to frequently use this folder, it might be useful to map this folder as a network drive. For more information, see the help of your operating system.

Accessing the shared content on Mac

Proceed as follows:

- 1 On the Go menu, click Connect To Server.
- 2 The Connect To Server window appears.

0 0	Connect to Server	
Server Address:		
smb://Technicolor		+ 0,
Favorite Servers:		
Remove	Browse	Connect

In the **Server Address** box, type **smb://<server name>**, where <server name> is the Server Name you assigned to your USB storage device (default: **smb://Technicolor**).



If you did not provide a server name, type smb://192.168.1.253.

3 The following window appears:



Select Guest and click Connect.

4 If prompted, select the partition that you want to open and click **OK**:

Disk_a1 Disk_b1	秋秋	Select the volumes to mount:
Disk_b1		Disk_a1
Encodino: Western (Mac)		
Encodino: Western (Mac)		
Encoding: Western (Mac)		
(Cancel) OK		Encoding: Western (Mac)

5 Your USB storage device is now mounted and is displayed on your desktop.

8.2 The UPnP AV Media Server

Introduction

Your Technicolor Gateway has a built-in DLNA-certified UPnP AV media server. This section describes how to use and configure this media server.

UPnP AV

1

UPnP AV (AV stands for Audio and Video) is a protocol especially designed to share *media* files on your *local network*.

DLNA-certified

The Digital Living Network Alliance (DLNA) is an organisation that imposes requirements to ensure the interoperatability of your media devices and standardize the communication between them.

Buying a DLNA-certified device like the Technicolor Gateway guarantees you that it will seamlessly integrate with your other DLNA-certified devices.

To allow you to access your media in a quick and easy way, the Technicolor Gateway scans your storage device for meta data information (for example, title, artist, album) and stores it in a database. When you are looking for a file, the Technicolor Gateway can simply query the database instead of having to go through all the files.

- This database will only be created if the following conditions are met:
 - Your disk or partition must have at least 250MB of free space
 - Your disk or partition must not be read-only.

UPnP AV network components

A UPnP AV network consists of the following components:

- The UPnP AV server is directly connected to your media files and makes them available on the network. In your network the Technicolor Gateway will fulfil this role.
- The UPnP AV client is a software application or hardware device that allows you to play or view the media files provided by your UPnP AV media server.

8.2.1 Configuring the UPnP AV Media Server

Introduction

The Network File Server is enabled by default and ready to use.

Enabling/disabling the UPnP AV Media Server

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 2 On the Tools menu, click Content Sharing.
- 3 In the Navigation bar, click **Configure**.
- 4 Under UPnP AV Media Server, click Server Enabled.
- 5 Click Apply.

Media Database

When you plug in your USB storage device, the Technicolor Gateway will automatically start building the *media database*. This database contains all meta data of the media files stored on your USB storage device.

To view the status of the media database:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 2 On the Tools menu, click Content Sharing.
- 3 In the *Navigation bar*, click **Configure**.
- 4 Under UPnP AV Media Server, you can find the Database Status.

UPnP AV Media Server	
Server Enabled:	
Rebuild Media Database:	Rebuild
Database Status:	Files are being analyzed

5 If you want to rebuild the database, click **Rebuild**.

8.2.2 Using the UPnP AV Media Server

Introduction

The UPnP AV Media Server lists all audio, video and picture files located on the connected USB storage device. All UPnP AV renderers (for example, a DLNA-certified Set-Top box) that are connected to your network are able to view this list and play or view items from this list.

On your UPnP AV renderer, the Technicolor Gateway's UPnP AV media server will be listed as **Technicolor TGXXX**. Below you can find a screenshot taken on a smartphone with a UPnP AV client.



Via this entry, you can browse to your media files.



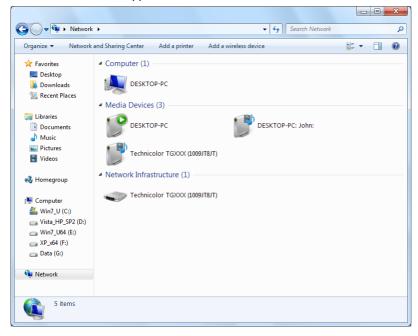
Windows 7

Windows 7 has native support for UPnP AV. It automatically detects UPnP AV and makes your media files available for playback on your Windows Media Player.

Proceed as follows:

1 On the Windows **Start** menu, click **Network**.

2 The Network window appears:



Under Media Devices you will find the Technicolor Gateway's UPnP AV Media Server (displayed as **Technicolor TGXXX**).

- 3 Double-click the Technicolor Gateway's UPnP AV Media Server to access your media files.
- 4 Windows Media Player starts up.

rganize 👻 Stream 👻 Create playlist	Title		▼ Search		، م
CDA 111					
Elbrary		1.71			
Playlists	50				
J Music	Music	Videos	Pictures	Recorded TV	Playlists
Videos					
Pictures					
Recorded TV					
🖗 Other Libraries					
Technicolor TGXXX					
Music					
Q Artist					
Album					
6 Genre					
🛃 Videos					
Pictures					
Recorded TV					

Your Technicolor Gateway's UPnP AV Media Server is listed on the left. This entry allows you to browse to your media files.

8.3 The FTP Server

Introduction

The Technicolor Gateway allows you to access your shared content by FTP. This can be useful if you want to be able to access your shared content from the Internet.

Via FTP you can *download and upload* all types of files both from your *local network and the Internet*.

Setting up the FTP server

Proceed as follows:

- 1 Protect your account with a password.
- 2 Enable the FTP Server and select the managed partition.

Protect your account with a password

If you did not yet configure your login to the Technicolor Gateway GUI with a password:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 2 On the Toolbox menu, click User Management.
- 3 In the Pick a task list, click Change my password.
- 4 Leave the Old Password box empty.
- 5 Type your new password both in the New Password box and Confirm New Password box.

Enable the FTP Server and select the managed partition

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 2 On the Tools menu, click Content Sharing.
- 3 In the Navigation bar, click Configure.
- 4 Under FTP Server, click Server Enabled.
- 5 Under List of connected disks, click the radio button next to the partition to make it managed.
- 6 The Technicolor Gateway now creates a **Media** and **Shared** folder on the selected partition. The **Shared** folder will be used as root location for FTP sessions.
- 7 Click Apply.

Result

The Shared folder and its subfolders are now accessible using FTP. The other folders are not accessible via FTP.

If you are connected to the Internet, the link to the FTP server is displayed under FTP Server:

Home > Toolbox >	Content Sharing		Overview Configure
<u>स</u> ी -	Content Sharing This page summarizes the configura You can share your files, music, pict	tion for sharing the content on ures and movies towards your	a USB disk connected to the gateway. home network and towards the Internet.
(Before you can safely unplug a	USB storage device, you must	stop it.
	 Network File Server (W 	indows Networking)	
	Server Name:	Technicolor	
	Server Description:	DSL Gateway	
	Workgroup:	WORKGROUP	
	Server Enabled:	Yes	
	UPnP AV Media Server		
	Server Enabled:	Yes	
	Profiler Status:	Files are being analyzed	ł
	Database Status:	Database construction i	n progress
	FTP Server		
	Server Address:	ftp://Administrator@172	2.18.17.79
	Server Enabled:	Yes	
	List of connected disks		
			Managed partition
	U3 Cruzer Micro (Disk 1)		
	Partition 1 7.6	4 GB 4.05 GB free	
	. <u></u>	An	nanaged partition has not been selected.

On the Technicolor Gateway network, you can also access the FTP server using its local address (192.168.1.253).

Additional configuration

Because most service providers use dynamic IP addresses, the IP address of your Internet connection may change frequently. This implies that the link to the FTP server will also change every time the public IP changes. With *Dynamic DNS*, you can assign a host name to the IP address (for example **mygateway.dyndns.org**). For more information, see "10.3 *Dynamic DNS*" on page 121.

8.4 Managing your Shared Content

Managed Partition

When your USB storage device is permanently connected to the Technicolor Gateway, you may want to

If you select your drive or partition as managed partition, users only have access to the following folders:

- Media
- Shared

All other folders will be hidden from the user. These hidden folders are still on the USB storage device, but you can not access them. If you connected more than one USB storage device, those devices will also be hidden.

Media folder

Use the Media folder to share your audio, video and picture files. This folder can only be accessed via the following servers:

- The Network File Server
 For more information, see "8.1 The Network File Server".
- UPnP AV Media Server.
 For more information, see "8.2 The UPnP AV Media Server".



If your partition is managed, the UPnP AV server will only use the media files that are located in the Media folder.

Shared folder

The **Shared** folder is a folder to share files both on the *local network and the Internet*. This folder can only be accessed via the following server:

- The Network File Server
 - For more information, see "8.1 The Network File Server".
- FTP Server

For more information, see "8.3 The FTP Server".



The FTP Server can only be used with a managed partition.

Ummanaged vs. managed

The following table compares the two modes:

Access via	Accessible folders		
	Unmanaged	Managed	
Network File Server	All	Media and Shared folder.	
UPnP AV Media Server	All	Media folder.	
FTP Server	Not available in this mode.	Shared folder.	

Setting up the managed partition

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Tools menu, click Content Sharing.
- 3 In the Navigation bar, click **Configure**.

- 4 Under List of connected disks, click the radio button next to the partition you want to configure as *Managed Partition*.
- 5 Click Apply.

Result

The Technicolor Gateway creates following folders:

Media:

Use this folder to share your media files with others users on your network. You can store your media files in following subfolders:

- Movies
- Music
- Pictures
- Shared:

Use this folder to share your other data with other users on your network. Optionally, users can also access this folder using FTP. For more information, see *"8.3 The FTP Server" on page 96*.

If the above folders already exist, the existing folders are used.

8.5 Safely Removing your USB Storage Device

Introduction

If you just unplug your USB storage device from the Technicolor Gateway you may loose your data. To avoid this you must first stop your USB storage device.

Stopping your USB storage device

Proceed as follows

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Toolbox menu, click Content Sharing.
- 3 In the Navigation bar, click **Configure**.
- 4 Click Stop.
- 5 Unplug your USB storage device from the Technicolor Gateway.

9 Sharing Your USB Printer

Introduction

A Technicolor Gateway USB port allows you to share your USB printer in your local network. This way everyone in your network can use the same printer without having to buy an expensive network printer.

Compatibility printer driver

The printer driver which runs on the computer must support unidirectional traffic. This is supported by the majority of modern day printers.



In case a multifunctional USB printer is connected to the Technicolor Gateway, the non-printing services may not work on your computer.

Restrictions



Only one USB printer can be connected to your Technicolor Gateway.

Procedure

- 1 Connect your USB printer to the Technicolor Gateway. For more information, "9.1 Connect your USB printer to the Technicolor Gateway" on page 102.
- Configure the printer sharing service on your Technicolor Gateway.
 For more information, see "9.2 Configuring The Printer Sharing Service on Your Technicolor Gateway" on page 103.
- **3** Install the printer on your computer. For more information, see "9.3 Installing the Printer On Your Computer" on page 105.

9.1 Connect your USB printer to the Technicolor Gateway

Plug the USB cable of your printer in (one of) the USB port(s) of your Technicolor Gateway.



9.2 Configuring The Printer Sharing Service on Your Technicolor Gateway

Proceed as follows:

- 1 Start a CLI session on the Technicolor Gateway. For more information, see "4.3 The Command Line Interface (CLI)" on page 49.
- **2** Define the LPD printer queues with the following command:

:printersharing LPD queue add name = <string>
 [type = <{Feed|Raw}>]
 [default = <{no|yes}>]

with:

name:

Name of the queue. This name will also be used when configuring the computer.

type:

This parameter represents the type of queue:

- Raw: The Technicolor Gateway just passes through the data to the printer. In most practical situations, this is the only queue type that will be needed.
- Feed: The Technicolor Gateway passes through the data to the printer, but an extra page feed is sent after each completed job. This type can be used when your printer is not ejecting the last page of a print job (for example when using clients running Linux/UNIX). This queue type is to be used in exceptional situations only and may not be properly supported by all printers.

▶ default:

When the parameter default is enabled, this queue will be used in case the user enters a wrong queue name. Only one queue can be the default queue.

A typical configuration of printer queues on the Technicolor Gateway is shown below:

:printersharing LPD queue add name=myprinter type=Raw default=yes :printersharing LPD queue add name=myprinteronunix type=Feed default=no

You can delete queues with the command **printersharing LPD queue delete name=<string>**. Before deleting a queue, make sure printer sharing is disabled.

3 If you want to check the configuration of printer queues on the Technicolor Gateway, execute the following command:

```
=>:printersharing LPD queue list
LPD queue info:
    name: myprinter
    type: Raw
    default: 1
LPD queue info:
    name: myprinteronunix
    type: Feed
    default: 0
=>
```

4 Enable LPD printer sharing with the following command:

:printersharing LPD config [state = <{disabled|enabled}>]

With:

state:

i

With this parameter you can enable/disable LPD printer sharing.

5 If you want to check your LPD printer sharing configuration, execute the following command:

```
=>:printersharing LPD list
LPD printserver service:
    enable: 1
=>
```

To make configuration changes via the CLI persistent, execute the command **:saveall**.

9.3 Installing the Printer On Your Computer

Introduction

If your computer runs

- Microsoft Windows 7 or Vista, continue with "9.3.1 How to install a printer on Windows 7/Vista" on page 106.
- Microsoft Windows XP, continue with "9.3.2 Installing Your Printer on Windows XP" on page 108.
- Mac, continue with "9.3.3 How to install a printer on Mac" on page 109.

9.3.1 How to install a printer on Windows 7/Vista

Requirements

Your computer must be connected to the Technicolor Gateway. For more information, see "3.3 Connecting Your Network Devices to the Technicolor Gateway" on page 30.

Your printer has not yet been installed on your computer

In this case, proceed as follows:

- 1 On the Windows Start menu, click Devices and Printers.
- 2 On the bar on the top, click **Add a printer**.



- 3 The Add Printer Wizard appears. Select Add a local printer.
- 4 Select Create a new port and select Standard TCP/IP Port from the drop-down list. Click Next.
- 5 The Type Hostname or IP address page appears. Complete the following fields:
 - → Hostname or IP address: enter 192.168.1.253.
 - Port Name: enter a name for your port (for example, Technicolor Printer Port).

Click Next.

- 6 The wizard now attempts to automatically detect the printer. This will take a one or two minutes.
- 7 The wizard prompts you that additional information is needed. Select **Custom** and click **Settings**.
- 8 The Configure Standard TCP/IP Port Monitor appears. Configure the following settings:
 - Under Protocol, select LPR.
 - Under LPR Settings:
 - 1 Type the name that you have configured in the Technicolor Gateway in the **Queue Name** box (for the typical configuration in *Configuring The Printer Sharing Service on Your Technicolor Gateway* the name is **myprinter**).
 - 2 Select LPR Byte Counting Enabled.

Click OK to confirm these port settings and click Next to continue in the Add Printer wizard.

- 9 The Install the printer driver window appears. Select the manufacturar of your printer from the Manufacturar list and then select the printer model from the Printers list and click Next.
- 10 The Type a printer name window appears.

In the Printer name box type the name that you want to give to this printer and click Next.

(Optionally) When asked if printer sharing via your computer should be enabled, select **Do not share this printer** and click **Next** to confirm.

11 Select Print a test page to print a test page with the newly installed printer or Finish to close the Add Printer Wizard.

Your printer has already been installed on your computer

In this case you only need to create the necessary printer ports. Proceed as follows:

- 1 On the Windows **Start** menu, click **Devices and Printers**.
- 2 Right-click the printer to be shared, click **Printer Properties** and go to the **Ports** tab.

- 3 Click on Add Port..., select Standard TCP/IP port and click on New Port.... The Add Standard TCP/IP Printer Port Wizard appears. Click Next to continue.
- 4 In the field **Printer Name or IP address**, type **192.168.1.253**. The **Port Name** is arbitrary. Click **Next** to confirm.
- 5 Select Custom and click Settings. The Configure Standard TCP/IP Port Monitor appears:
 - Select LPR as Protocol.
 - ▶ In the section LPR Settings, fill in the field Queue Name with the name that you have configured in the Technicolor Gateway (for the typical configuration in Configuring The Printer Sharing Service on Your Technicolor Gateway the name is myprinter) and select the LPR Byte Counting Enabled option.
- 6 Confirm these settings with OK. The Configure Standard TCP/IP Port Monitor closes.

Click Next and Finish. The Add Standard TCP/IP Printer Port Wizard closes. The new printer port for the printer is now created and selected for this printer.

9.3.2 Installing Your Printer on Windows XP

Requirements

Your computer must be connected to the Technicolor Gateway. For more information, see "3.3 Connecting Your Network Devices to the Technicolor Gateway" on page 30.

Your printer has not yet been installed on your computer

If the printer is not yet installed on the computer, proceed as follows:

- 1 On the Windows Start menu, click (Settings>) Printers and Faxes.
- 2 Click (File >) Add a printer. The Add Printer Wizard appears. Click Next to continue.
- 3 Select Local printer attached to this computer and click Next to confirm.
- 4 Select Create a new port and choose Standard TCP/IP Port from the drop-down list. Click Next to confirm.
- 5 The Add Standard TCP/IP Printer Port Wizard appears. Click Next to continue.
- 6 In the field Printer Name or IP address, type 192.168.1.253. The Port Name is arbitrary. Click Next to confirm.
- 7 Select Custom and click Settings. The Configure Standard TCP/IP Port Monitor appears.
 - Select LPR as Protocol.
 - In the section LPR Settings, fill in the field Queue Name with the name that you have configured in the Technicolor Gateway and (for the typical configuration in Configuring The Printer Sharing Service on Your Technicolor Gateway the name is myprinter) select the LPR Byte Counting Enabled option.
- 8 Confirm with OK. The Configure Standard TCP/IP Port Monitor closes.
- 9 Click Next and Finish. The Add Standard TCP/IP Printer Port Wizard closes.
- 10 In the Add Printer Wizard, select the correct printer driver and confirm with Next.
- 11 Enter the Printer name and select whether or not you want to use this printer as default printer. Click Next to confirm.
 - (Optionally) When asked if printer sharing via your computer should be enabled, select **Do not share this printer** and click **Next** to confirm.
- 12 The wizard prompts you to print a test page. Select Yes or No and click Next when finished.
- 13 Click Finish to complete the installation. The printer is now installed on your computer.

Your printer has already been installed on your computer

If the printer was already previously installed on the computer, you only have to create a new printer port:

- 1 On the Windows Start menu, click (Settings>) Printers and Faxes.
- 2 Right-click the printer to be shared, select **Properties** and go to the **Ports** tab.
- 3 Click on Add Port..., select Standard TCP/IP port and click on New Port.... The Add Standard TCP/IP Printer Port Wizard appears. Click Next to continue.
- 4 In the field Printer Name or IP address, type 192.168.1.253. The Port Name is arbitrary. Click Next to confirm.
- 5 Select Custom and click Settings. The Configure Standard TCP/IP Port Monitor appears:
 - > Select LPR as Protocol.
 - In the section LPR Settings, fill in the field Queue Name with the name that you have configured in the Technicolor Gateway (for the typical configuration in Configuring The Printer Sharing Service on Your Technicolor Gateway the name is myprinter) and select the LPR Byte Counting Enabled option.
- 6 Confirm these settings with OK. The Configure Standard TCP/IP Port Monitor closes.
- 7 Click Next and Finish. The Add Standard TCP/IP Printer Port Wizard closes. The new printer port for the printer is now created and selected for this printer.

9.3.3 How to install a printer on Mac

Requirements

Your computer must be connected to the Technicolor Gateway. For more information, see "3.3 Connecting Your Network Devices to the Technicolor Gateway" on page 30.

Procedure

- 1 On the Apple menu, click System Preferences...
- 2 The System Preferences window appears. Click Print & Fax.
- 3 The Print & Fax window appears. Click + to add a new printer.
- 4 The **Printer Browser** window appears. Enter the following settings:
 - Protocol: Line Printer Daemon LPD
 - Address: Type 192.168.1.253.
 - **Queue**: The name that you have configured in the Technicolor Gateway. If you leave this field blank, the default queue will be used if configured (for the typical configuration in *Configuring The Printer Sharing Service on Your Technicolor Gateway* the name is **myprinter**).
 - Name: Enter a name of your choice to your printer or leave default value.
 - Location: Enter a location or leave blank.
 - **Print using**: Select a printer model or leave the default value.
- 5 Click Add.
- 6 The printer is now installed on your computer.

10 Technicolor Gateway Network Services

In this chapter

In this chapter we will take a closer look at following features:

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10.1 UPnP	112
10.2 Assigning a service (HTTP, FTP,) to a Computer	119
10.3 Dynamic DNS	121

Feature availability

Depending on the configuration offered by your service provider, some features may not be available on your Technicolor Gateway. For more information, contact your service provider.

10.1 UPnP

Introduction

UPnP is designed to automate the installation and configuration of a (small) network as much as possible. This means that UPnP-capable devices can join and leave a network without any effort of a network administrator.

Supported Operating Systems

The following operating systems support UPnP:

- Windows 7
- Windows Vista
- Windows XP

1

If your computer is running Windows XP, you first have to install the UPnP component. For more information, see "10.1.4 Installing UPnP on Windows XP" on page 117.

UPnP and the Technicolor Gateway

UPnP offers you the following functions:

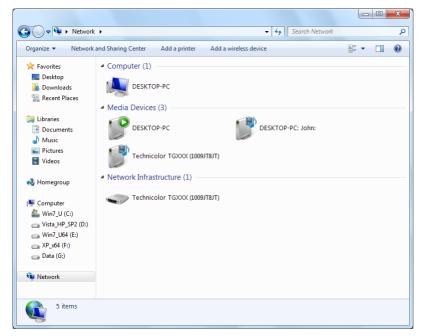
- You can access the Technicolor Gateway GUI without having to remember the address of the Technicolor Gateway. For more information, see "10.1.1 Accessing Your Technicolor Gateway via UPnP" on page 113.
- If you are using a PPP connection to connect to the Internet, you can enable/disable your Internet connection without having to open the *Technicolor Gateway GUI*.
 For more information, see "10.1.2 Managing your Internet connection via UPnP" on page 114.
- You do not have to manually create port mappings to run services on a computer. The automatic port configuration mechanism for UPnP-enabled games and applications will do this for you. If the application is UPnP-enabled, UPnP will create these entries automatically. For more information, see "10.2 Assigning a service (HTTP, FTP,...) to a Computer" on page 119.

10.1.1 Accessing Your Technicolor Gateway via UPnP

Windows 7/Vista

If you computer runs Windows 7/Vista:

- 1 On the Windows Start menu, click Network.
- 2 The Network window appears:



- 3 Right-click your Technicolor Gateway (displayed as Technicolor TGXXX) and click View device web page.
- 4 The Technicolor Gateway GUI appears.

Windows XP

If you computer runs Windows XP:

- 1 Go to My Network Places.
- 2 The My Network Places window appears:



- 3 Double-click your Technicolor Gateway (displayed as Technicolor TGXXX).
- 4 The Technicolor Gateway GUI appears.

10.1.2 Managing your Internet connection via UPnP

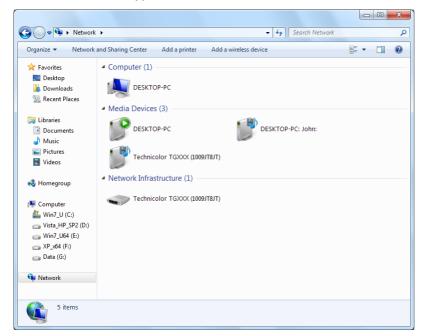
Applicability

This section only applicable if you are using a PPP connection to the Internet.

Windows 7/Vista

If you computer runs Windows 7/Vista:

- 1 On the Windows **Start** menu, click **Network**.
- 2 The Network window appears:



- 3 Right-click your Technicolor Gateway (displayed as Technicolor TGXXX).
- 4 If you are currently:
 - Connected to the Internet, click **Disable** to disconnect from the Internet.
 - Not connected to the Internet, click **Enable** to connect to the Internet.

Windows XP

- 1 On the Windows Start menu, click (Settings >) Control Panel.
- 2 The Control Panel window appears. Click (Network and Internet Connections) > Internet Connections.

3 The Network Connections window appears;



4 If you right-click the Internet Connection icon, you can connect/disconnect your connection to the Internet.

Disabling this feature

To prevent that users can connect/disconnect you can enable **Extended Security**. This feature is enabled by default. For more information, see *"10.1.3 Configuring UPnP on the Technicolor Gateway" on page 116*.

10.1.3 Configuring UPnP on the Technicolor Gateway

Introduction

On the Technicolor Gateway GUI you can:

- Enable/Disable UPnP.
- Enable/Disable Extended Security.

Enable/Disable UPnP

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 2 On the Toolbox menu, click Game & Application Sharing.
- 3 Under Universal Plug and Play:
 - Select the Use UPnP check box, to enable UPnP.
 - Clear the Use UPnP check box, to disable UPnP.
- 4 Click Apply.

Extended Security

If Extended Security is enabled, only limited UPnP operation between the host and the Technicolor Gateway is allowed:

- A local host is not allowed to connect/disconnect the Technicolor Gateway Internet connection. You can then only connect/disconnect the Internet connection via the Technicolor Gateway GUI
- Address translation mappings can only be added or changed via UPnP for the host on which the UPnP application is running.

Enable/Disable Extended Security

- 1 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 2 On the Toolbox menu, click Game & Application Sharing.
- 3 Under Universal Plug and Play, select Use Extended Security.
- 4 Click Apply.

10.1.4 Installing UPnP on Windows XP

Adding UPnP

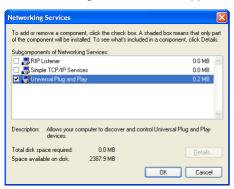
If you are running Microsoft Windows XP, it is recommended to add the UPnP component to your system. Proceed as follows:

- 1 In the Start menu, click (Settings >) Control Panel.
- 2 The Control Panel window appears. Click Add or Remove Programs.
- 3 The Add or Remove Programs window appears. Click Add/Remove Windows Components.
- 4 The Windows Components Wizard appears:



In the Components list, select Networking Services and click Details

5 The Networking Services window appears:



Select Universal Plug and Play or UPnP User Interface and click OK.

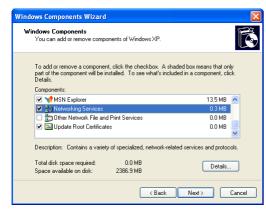
- 6 Click Next to start the installation and follow the instructions in the Windows Components Wizard.
- 7 At the end of the procedure the wizard informs you that the installation was successful. Click Finish to quit.

Adding IGD Discovery and Control

Your Windows XP system is able to discover and control Internet Gateway Devices (IGD), like the Technicolor Gateway on your local network. Therefore, it is recommended to add the IGD Discovery and Control client to your system. Proceed as follows:

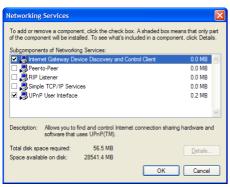
1 On the Windows taskbar, click **Start**.

- 2 Select (Settings >) Control Panel > Add or Remove Programs.
- 3 In the Add or Remove Programs window, click Add/Remove Windows Components.
- 4 The Windows Components Wizard appears:



Select Networking Services in the Components list and click Details.

5 The Networking Services window appears:



Select Internet Gateway Device Discovery and Control Client and click OK.

- 6 Click Next to start the installation and follow the instructions in the Windows Components Wizard.
- 7 At the end of the procedure, the wizard informs you that the installation was successful. Click Finish to quit.

10.2 Assigning a service (HTTP, FTP,...) to a Computer

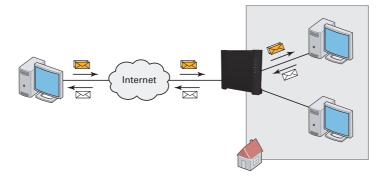
Introduction

The Technicolor Gateway allows you to use one Internet connection for multiple computers. This means that all your computers share one public IP address, as if only one computer were connected to the outside world.

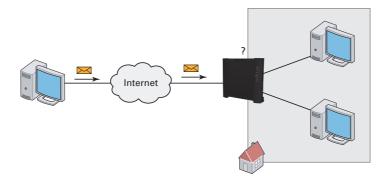
lssue

When the Technicolor Gateway receives an incoming message, the Technicolor Gateway has to decide to which computer it has to send this message.

If the incoming message is a response to an outgoing message originating from one of your computers, the Technicolor Gateway sends the incoming message to this computer.



If your are running a server or an application that acts as a server (for example a HTTP server, Internet game), the initial message will come from the Internet and the Technicolor Gateway has no information to decide to which computer it should forward the incoming message.



Solution

To avoid this problem you can do either of the following:

- Enable UPnP.
- Assign a game or application to a local networking device.

UPnP

UPnP is a technology that enables seamless operation of a wide range of games and messaging applications. Your computer will use UPnP to communicate to the Technicolor Gateway which services are running on the computer.

For example, when you start a UPnP-enabled application on your computer, it will automatically create the necessary port mappings on this computer and on the Technicolor Gateway.

For more information on UPnP, see "10.1 UPnP" on page 112.

Assign a game or application to a local networking device

If you assign a game or application to a local networking device, you will basically tell the Technicolor Gateway that if it receives requests for a specific game or application, it has to forward these messages to a specific computer.

Proceed as follows to do so:

- 1 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 2 On the Toolbox menu, click Game & Application Sharing.
- 3 In the Pick a task list, click Assign a game or application to a local network device.
- 4 In the Game or application list, click the service you want to run on the computer. For example, HTTP Server (World Wide Web).



If the service is not available in the list, click **Create a new game or application** in the **Pick a task** list. For more information, click **Help** on the *Technicolor Gateway GUI*.

- 5 In the **Device** list, select the computer to which you want to assign the service. Your computer will be listed with its computer name.
- 6 All incoming requests for the selected service will now be directed to the selected device. The Technicolor Gateway will also configure its firewall to allow this service.

10.3 Dynamic DNS

Introduction

The Dynamic DNS service allows you to assign a dynamic DNS host name (for example mywebpage.dyndns.org) to a broadband connection even if it is using a dynamic IP address. As soon as the device gets a new IP address, the dynamic DNS server updates its entry to the new IP address.

What you need

Before you can configure Dynamic DNS, you first have to create an account at a Dynamic DNS service provider. For example:

- www.dyndns.org
- <u>www.no-ip.com</u>
- www.dtdns.com

Procedure

- 1 Browse to the Technicolor Gateway GUI. For more information, see "Accessing the Technicolor Gateway GUI" on page 43.
- 2 On the **Toolbox** menu, click **Dynamic DNS**.
- 3 On the Navigation bar, click Configure.
- **4** Select the **Enabled** check box.
- 5 If necessary, select the broadband connection to which you want to assign the Dynamic DNS host name in the Interface list.
- 6 Type the user name and password of your Dynamic DNS service account in the corresponding fields.
- 7 In the **Service** list, click the name of your Dynamic DNS service provider.
- 8 In the **Host** box, type the host name that you got from the Dynamic DNS service provider (for example mywebpage.dyndns.org).
- 9 Click Apply.

11 Internet Security

Overview

The Technicolor Gateway offers various options to secure your network and network connection:

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11.2 Web Site Filtering	125
11.3 Firewall	130

11.1 IPSec and VPN

What Is a VPN?

A VPN or Virtual Private Network is a private communications network set up over a publicly accessible network. A VPN creates a kind of tunnel through which information is transported between a computer and the network to which it is connected.

What Is IPSec?

IPSec or **IP Sec**urity is a way of securing communication over IP. IPSec is used to create a VPN. It allows you to connect your local computer to the remote network in a safe way as it provides:

- Reliable user authentication.
- Reliable tunnel encryption able to cope with existing network and firewall settings.

IPSec and VPN on your Technicolor Gateway

Your Technicolor Gateway has integrate has an integrated IPSec/VPN client and server allowing you to setup the following scenarios configure the most common VPN scenarios, for example:

- LAN-to-LAN connection
- VPN Client configuration
- VPN Server configuration

LAN-to-LAN

The Technicolor Gateway allows you to connect LAN networks that are located on different sites via a secure VPN tunnel over the public Internet. At each peer the Technicolor Gateway acts as an IPSec security gateway.

VPN Client

The VPN client in the Technicolor Gateway can replace a software VPN client installed on a computer. You can use it for example to connect from your home to the corporate network for teleworking.

Using the VPN client in the Technicolor Gateway has several advantages over the use of VPN client software installed on the computer of the end user:

- The administrator of the corporate network does not have to worry about upgrades of the operating system on the teleworker's computer.
- Since the VPN client is fully integrated in the Technicolor Gateway, it can not be tampered with, and is probably more secure than software residing on a computer.
- Adverse interactions with computer software, such as firewalls, PPPoE clients, wireless drivers, viruses and worms are avoided. This guarantees a better stability and fewer functionality problems.

VPN Server

The Technicolor Gateway can establish a secure connection with any remote gateway that meets the VPN settings, regardless its location in the public network. The use of the Extended Authentication protocol can optionally be configured. In this case, a list of authorized users is composed and stored on the Technicolor Gateway.

More information

In-depth information about the different scenarios and configuration can be found in the Technicolor Gateway IPSec documentation available at <u>www.technicolor.com</u>.

11.2 Web Site Filtering

Introduction

The Technicolor Gateway allows you to deny access to specific web sites.

Access Denied page

When a user tries to access a page that is being blocked, the following page is displayed:

Access Denied...

Access to the requested website has been blocked because of the following reason: You are not allowed to view this website. <u>http://www.evil.com/</u> For more information or if you believe the website has been incorrectly blocked, please contact your Technicolog Gatewaredministrate.

Address-based filtering

With address-based filtering (or URL-filtering) you can **block web sites based on their address** (for example www.porn.com).

Content-based filtering

As you know, the Internet consists of a large number of web sites, and that number still increases every day. This makes it almost impossible to keep the list of addresses up-to-date.

To solve this problem Technicolor Gateway introduced content-based filtering.

With content-based filtering you can **block web sites based on their content category** (for example pornography) instead of their URL. This way, you only need to select the appropriate categories and the content category server takes care of the rest. This content category server is updated at regular intervals.

Combining the two filters

Address-based filtering has priority over content-based filtering. This means that when you are blocking a specific category, you can still access a specific address provided you create a rule to allow access to that URL.

For example, if you are blocking content from the **Finance / Investment** category, you can create a rule to make an exception for netbanking.mybank.com.

Activating content-based filtering

Before you can use content-based filtering you must first activate it by purchasing a license key at your service provider or by activating the 30-day trial.

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Toolbox menu, click Web Site Filtering.
- 3 In the Pick a task list, click Activate Web Filtering License.
- 4 The Web Filtering Activation page appears. Under License Type, select:
 - ▶ 30-days evaluation if you first want evaluate this feature.
 - Standard if you have already purchased a license key. The License key box appears as soon as you select this option. Type the license key that you received from your service provider in this box.
- 5 Click Apply.

Option 1: content-based filter (combined with the address-based filter)

If you want to use the content-based filtering:

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Toolbox menu, click Web Site Filtering.
- 3 On the Navigation bar, click Configure.
- 4 Make sure that the Use Content-Based Filter check box is selected.
- 5 Configure the content-based filter. For more information, see "11.2.1 Configuring Content-based Filtering" on page 127.
- 6 If you want to make exceptions for specific web sites, add the necessary rules in the address-based filter. For more information, see "11.2.2 Adding Rules for Address-Based Filtering" on page 128.

Option 2: address-based filter only

Take this option if content filtering is not available on your Technicolor Gateway or you don't want to use it.

To configure address-based filtering:

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Toolbox menu, click Web Site Filtering.
- **3** On the Navigation bar, click **Configure**.
- 4 Make sure that the Use Address-Based Filter check box is selected.
- 5 In the Action for Unknown Sites, select:
 - Allow as the default rule if you want to allow access to *all* web sites and manually specify which web sites may not be accessed.
 - **Block** as the default rule if you want to deny access to **all** web sites and manually specify a number of web sites that may be accessed.
- 6 Click Apply.
- 7 If you want to make exceptions for specific web sites, add the necessary rules in the address-based filter.

For more information, see "11.2.2 Adding Rules for Address-Based Filtering" on page 128.

11.2.1 Configuring Content-based Filtering

Requirements

Content-based filtering must be activated on your Technicolor Gateway. For more information, see *"Activating content-based filtering"* on page 125.

Accessing the configuration page

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Toolbox menu, click Web Site Filtering.
- 3 On the Navigation bar, click Configure.
- 4 Under Content-Based Filtering you can change the settings of the content-based filter.

Configuration

Under Content-Based Filtering:

- 1 Select Use Content-Based Filter check box (if needed).
- 2 In the Action for uncategorised sites list, select a default action for sites that have not yet been categorised.
- 3 Under Content Level, select the content level you want to use.

If you want a more detailed view of the content that will be blocked for this level, click the **Edit** link next to the content level.

If needed, you can change the Name, Description and Configuration of the content level.

4 Click Apply after you have made your changes.

Creating your own content level

- 1 In the Pick a task list, click Create a new content level.
- 2 Enter a Name and Description for your content level and click Next.
- 3 Under Configuration, select:
 - Clone Existing Level if you want to start from an existing level. You can now select the level that you want to clone.
 - White list if you want to block everything and select which content should be allowed.
 - Black list if you want to allow everything and select which content should be blocked. Click Next.
- 4 Under Configuration:
 - Select the check boxes of the categories/groups you want to allow.
 - Clear the check boxes of the categories/groups you want to block.
- 5 Click Apply.
- 6 Configure the content-based filter with the new level. For more information, see "Configuration" on page 127.

11.2.2 Adding Rules for Address-Based Filtering

Introduction

Address-based filtering has a higher priority than content-based filtering. This means that when you are blocking a specific category, you can still access a specific site if you allow it in the address-based filter.

Example

If you block content from the **Finance / Investment** category and allow access to netbanking.mybank.com, netbanking.mybank.com will still be accessible.

Options

With the address-based filter you can:

- Deny access to a specific web site.
- Allow access to a specific web site.
- Redirect a web site.
- Redirect all web sites.

Deny access to a specific web site

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Toolbox menu, click Web Site Filtering.
- 3 Make sure the Use Address-Based Filter check box is selected.
- 4 Type the URL of the Web site you want to block (for example "mail.provider.com") in the Web Site box.
- 5 In the Action list, click Block.
- 6 Click Add.

Allow access to a specific web site

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Toolbox menu, click Web Site Filtering.
- 3 Make sure the Use Address-Based Filter check box is selected.
- 4 Type the URL of the Web site you want to allow (for example "netbanking.bank.com") in the Web Site box.
- 5 In the Action list, click Allow.
- 6 Click Add.

Redirect a web site

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Toolbox menu, click Web Site Filtering.
- 3 Make sure the Use Address-Based Filter check box is selected.
- 4 Type the URL of the Web site you want to redirect (for example "cracks.am") in the Web Site box.
- 5 Click Redirect in the Action list.

- 6 Type the URL of the Web site you want to redirect to (for example "mycompany.com/internetpolicy.htm") in the **Redirect** box.
- 7 Click Add.

Redirect all web sites

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Toolbox menu, click Web Site Filtering.
- 3 Make sure the Use Address-Based Filter check box is selected.
- 4 Type "*" in the Web Site box.
- 5 Click **Redirect** in the **Action list**.
- 6 Type the URL of the Web site you want to redirect to (for example "mycompany.com/internetpolicy.htm") in the **Redirect** box.
- 7 Click Add.

11.3 Firewall

Introduction

The Technicolor Gateway comes with an integrated firewall that helps you protect your network from attacks from the Internet. This firewall has a number of predefined levels to allow you to adjusted the firewall to your needs.

The Firewall is disabled by default. This means that **all** traffic passing through the Technicolor Gateway (from and to the Internet) is allowed.

Predefined security levels

The Technicolor Gateway has a number of predefined security levels. The following levels are available:

BlockAll:

All traffic from and to the Internet is blocked. Game and Application Sharing is not allowed by the firewall.

Although BlockAll will block all connections, some mandatory types of traffic such as DNS will still be relayed between LAN and WAN by the Technicolor Gateway.

Standard:

All outgoing connections are allowed. All incoming connections are blocked, except for inbound connections assigned to a local host via Game and Application Sharing.

Disabled:

All in- and outgoing traffic is allowed to pass through your Technicolor Gateway, including Game and Application Sharing.

This is the default firewall level.

High

All outgoing connections are blocked, except for traffic from well-known protocols such as DNS, HTTP, HTTPS, FTP, TELNET, IMAP and POP. All incoming connections are blocked. Game and Application Sharing is not allowed.

Medium:

All outgoing connections are blocked except MS Windows protocols such as NetBIOS, RPC and SMB. All incoming connections are blocked except inbound connections assigned to a local host via Game and Application Sharing.

Low:

All outgoing connections are allowed. All incoming connections are blocked, except for ICMP (Internet Control Management Protocol) and inbound connections assigned to a local host via Game and Application Sharing.



The firewall levels only have impact on traffic passing through your Technicolor Gateway. This means that the handling of traffic directly appointed from and to Technicolor Gateway is independent of the selected firewall level.

Protocol checks will be performed on all accepted connections, irrespective of the chosen level.

Changing the security level

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Toolbox menu, click Firewall.
- 3 The Firewall page appears. In the upper-right corner, click Configure.
- 4 Under Security Settings, select the security level of your choice and click Apply.

Creating your own security level

Proceed as follows:

1 In the Toolbox menu click Firewall.

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- 2 In the Firewall section, go to the Configure page.
- 3 In the Pick a task list, click Create a new Security Level.
- 4 In the Name box, type a name for the new security level and select an existing security level to clone from.
- 5 Click Apply.
 - Once you create a security level, you can not delete it anymore. It will always available in the list of available security levels.
- 6 A page with the firewall settings of your newly created security level appears. Click Edit.
- 7 Enter the following information:
 - > The Name of the firewall rule.
 - The Source Interface and IP Address (range).

A

Use Any as IP address in case all traffic for the interface should be parsed.

Or you can type a **User-defined** IP address (range).

• The Destination Interface and IP Address (range)



Use $\ensuremath{\mathsf{Any}}\xspace$ as IP address in case all traffic for the interface should be parsed.

Or you can type a **User-defined** IP address (range).

- The **Service** type of the traffic; this can be a protocol (DNS, SMTP,...) or a specific Technicolor Gateway system service.
- 8 Select an Action that should be done on traffic for which the firewall rules applies:
 - Accept: to allow the traffic to pass
 - **Deny**: to drop the traffic (without notification)
 - Count: to let the traffic pass, but count it (Hits)
- 9 Click Apply.

12 Support

Introduction

This chapter suggests solutions for issues that you may encounter while installing, configuring or using your Technicolor Gateway.

If the suggestions do not resolve the problem, look at the support pages on <u>www.technicolor.com</u> or contact your service provider.

Topics

This chapter describes the following topics:

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12.2 General Technicolor Gateway Troubleshooting	135	
12.3 Wired Connection Troubleshooting	137	
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12.1 Setup Troubleshooting

Introduction

If you have trouble to install your Technicolor Gateway with the Setup CD, try the suggested solutions in this section.

The Setup CD does not start automatically

If your computer runs:

- Microsoft Windows 7 and Vista:
 - a Click the Windows Start button.
 - **b** In the **Search programs and files** box, type the following path: **D:\Setup.exe**, where D stands for the drive letter of your CD- or DVD-ROM drive.



- c Press ENTER.
- Microsoft Windows XP:
 - a Click the Windows Start button.
 - b Click Run.
 - c In the Open field, type the following path: D:\Setup.exe, where D stands for the drive letter of your CD- or DVD-ROM drive.
- Mac OS X:
 - a On your desktop, double-click the CD icon.
 - **b** Double-click **Menu**.

Your Technicolor Gateway has not been found

If you see this error during setup, make sure that:

- The Technicolor Gateway is turned on and fully initialized.
- Your computer has a valid IP address, that is any address but 0.0.0.0. For more information, consult the help of your operating system.
- No dedicated firewall device or router is placed between your computer and the Technicolor Gateway.
- No personal network security software (for example firewall software) is running on your computer.
- Your computer is correctly connected to the Technicolor Gateway.

12 SUPPORT

12.2 General Technicolor Gateway Troubleshooting

None of the LEDs light up (Technicolor Gateway does not work)

Make sure that:

- The Technicolor Gateway is plugged into a power socket outlet.
- You are using the correct power supply for your Technicolor Gateway device.

The power requirements for your Technicolor Gateway are clearly indicated on the identification label of the Technicolor Gateway. Only use the power adaptor supplied with your Technicolor Gateway.

■ The Technicolor Gateway is turned on via the push button or rocker switch on the back panel.

The Broadband LED does not light up or is blinking

Make sure that:

- The DSL cable is correctly connected. For more information, see "3.1 Connecting the Technicolor Gateway to your Service Provider's Network".
- The DSL service is enabled on your telephone line. For more information, contact your Internet Service Provider.

The Internet LED does not light up

If you must authenticate to connect to the Internet, make sure that your user name and password are correct.

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Broadband menu, click Internet Services.
- 3 Under Internet, click View More.
- 4 Check your user name
- 5 Re-enter your password.
- 6 Click Connect.

Technicolor Gateway unreachable

If you can not access your Technicolor Gateway via your web browser or the Setup wizard, you might consider a hardware reset as described in *"12.6 Reset to Factory Defaults" on page 139*.

12.3 Wired Connection Troubleshooting

Ethernet LED does not light up

Make sure that:

- The Ethernet cable is securely connected to the Ethernet port on your Technicolor Gateway and your computer.
- You are using the correct cable type for your Ethernet equipment, that is at least UTP CAT5 with RJ-45 connectors.

12.4 Wireless Connection Troubleshooting

No Wireless Connectivity

Try the following:

- Make sure that the wireless client adapter is enabled (message like "radio on").
- Make sure that the wireless client is configured for the correct wireless settings (Network Name, security settings).
- If the signal is low or not available, try to reposition the Technicolor Gateway or (if available) redirect the antenna(s) of the Technicolor Gateway for optimal performance.
- Change the wireless channel.

Poor Wireless Connectivity or Range

Try the following:

- Check the signal strength, indicated by the wireless client manager. If the signal is low, try to reposition the Technicolor Gateway or (if available) redirect the antenna(s) of the Technicolor Gateway for optimal performance.
- Change the wireless channel.
- Use WPA(2)-PSK as encryption. For more information, see "5.3 Securing Your Wireless Connection" on page 63.

Change the wireless channel

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI.
- 2 Under Office Network, click Wireless

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- 3 The Wireless Access Point page appears.
- 4 In the Navigation bar, click Configure.
- 5 Under Configuration, select the channel of your choice in the Channel Selection list.
- 6 Click Apply.

Can not connect via WPS

If you are having trouble connecting your wireless client via WPS, try to configure it manually. For more information, see "5.2 Connecting Your Wireless Client without WPS" on page 62.

12.5 Voice over IP Troubleshooting

Introduction

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If you cannot make or receive any phone calls via your Technicolor Gateway, try the suggestions in the following sections.

Calling over VoIP

If you have problems calling via VoIP, check whether:

- Your phone is correctly connected to the Technicolor Gateway.
- Your phone is working on the traditional telephone network (PSTN):
 - Connect your phone directly to the telephone wall outlet.
 - Try to make a phone call.
 - This is not possible on the VoIP-only variants. For more information, see "Applicability" on page 72.
- Your phone number, user name, and password are configured correctly.
- The registrar's and proxy server's IP address and port number are configured correctly.
- The Power, Broadband and Voice LEDs are on.

Calling over the traditional telephone network (PSTN)

This is not possible on the VoIP-only variants. For more information, see "Applicability" on page 72.

If you have problems calling via the traditional telephone network, check whether:

Your phone is correctly connected to the Technicolor Gateway.

If the Technicolor Gateway is turned off, phone calls are always routed over PSTN.

- Your phone is working on the PSTN network:
 - Connect your phone directly to PSTN.
 - Try to make a phone call.
- The Forced FXO service is activated, this means that your service provider may request you to dial an extra prefix for making calls via PSTN.

Problems with Telephony Services

If you have a problem with a service, check whether the service is activated. For more information, see "6.3.1 Activating a Telephony Service on your Technicolor Gateway" on page 78.

12.6 Reset to Factory Defaults

Resetting your Technicolor Gateway

If at some point you can no longer connect to the Technicolor Gateway or you want to make a fresh install, it may be useful to perform a reset to factory defaults.

Warning

A reset to factory default settings deletes all configuration changes you made. Therefore, after the reset a reconfiguration of your Technicolor Gateway will be needed.

Also your wireless clients will have to be re-associated, as described in "5 *The Technicolor Gateway Wireless Access Point*" on page 59.

Methods

You can choose between:

- Resetting the Technicolor Gateway via the Technicolor Gateway GUI
- Reset the Technicolor Gateway via the Reset button

Resetting the Technicolor Gateway via the Technicolor Gateway GUI

Proceed as follows:

- 1 Browse to the Technicolor Gateway GUI.
- 2 On the Technicolor Gateway menu, click Configuration.
- 3 In the **Pick a task** list, click **Reset my** Technicolor Gateway.
- 4 The Technicolor Gateway restores the initial configuration and restarts.
- 5 The Technicolor Gateway returns to the Technicolor Gateway home page (unless the IP address of your computer is not in the same subnet as the default IP address of the Technicolor Gateway, being 192.168.1.254).

Reset the Technicolor Gateway via the Reset button

- 1 Make sure the Technicolor Gateway is turned on.
- 2 Push the **Reset** button for 7 seconds and the release it.





3 The Technicolor Gateway restarts.

Your system administrator may have disabled the physical reset button of the Technicolor Gateway. In this case, a hardware reset to defaults is not possible.

12.7 RJ45-to-DB9 Pinout

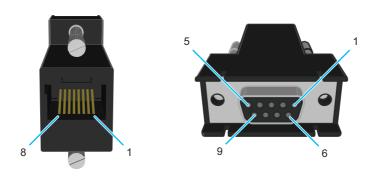
Introduction

If you plan to use another RJ45-to-DB9 adaptor than the one that you can purchase at your service provider, make sure that the adaptor is using the pinout described below.



Using other cables than provided by your service provider, may damage your equipment.

Pin layout



Internal wiring

RJ45	DB-9	
Pin	Pin	Wire Colour
1	8	Black
2	6	Brown
3	2	Red
4	5	Orange
5		Yellow
6	3	Green
7	4	Blue
8	7	White



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